

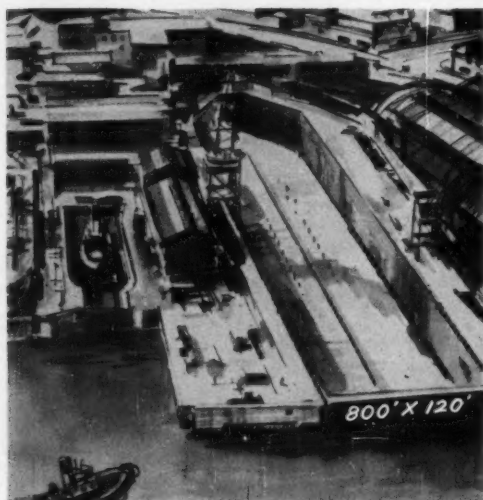
The SHIPPING WORLD



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6 SEPTEMBER 1961

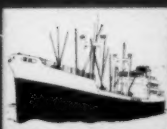
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THE SHIP IN ART

A Sea Piece

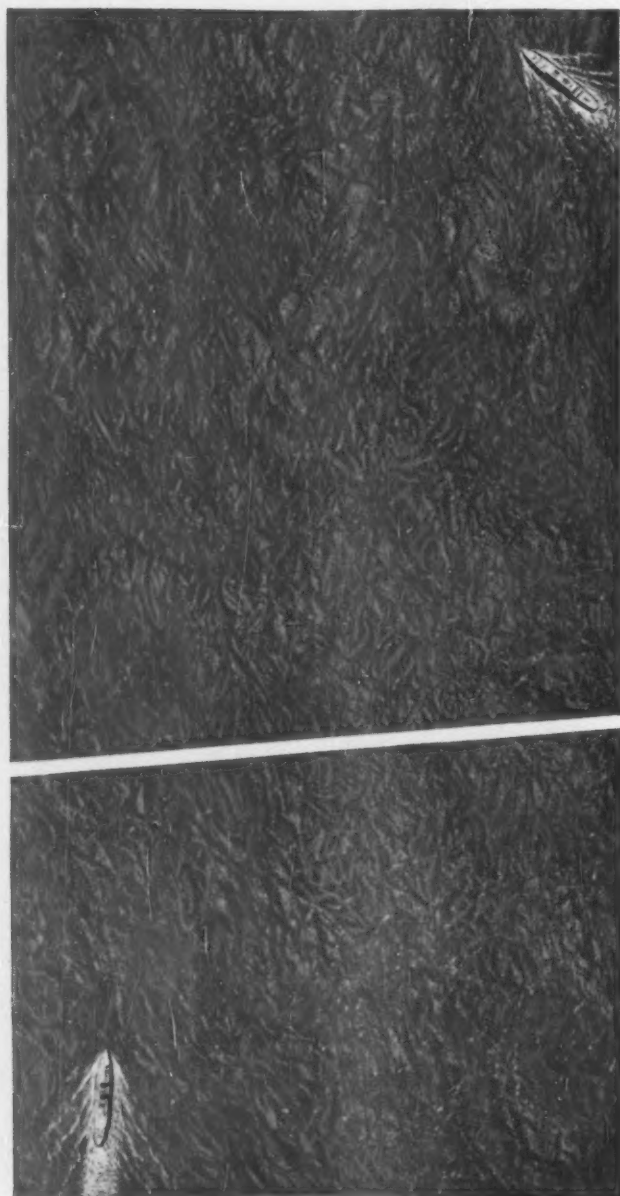
RICHARD PARKES BONINGTON (1802-1828)

Richard Bonington, who died when he was twenty six, spent much of his short life in France, and though influenced by the Venetians nevertheless became one of the three greatest of 19th century English landscape painters. His friend Delacroix, the greatest French master of his time, said that Bonington was carried away by his own skill, but such was that skill that in English landscape painting only Turner and Constable surpass him among his contemporaries, and in his mastery of the human figure he surpasses them. "A Sea Piece" aptly demonstrates this young painter's superb talent, and is considered to be one of his finest marine paintings.

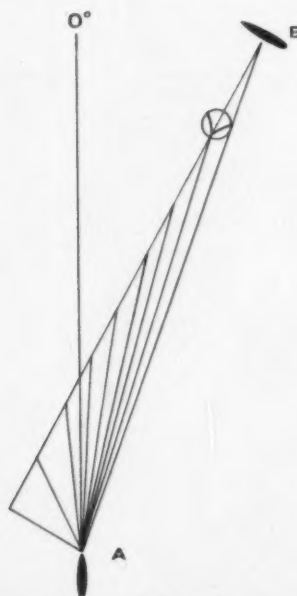


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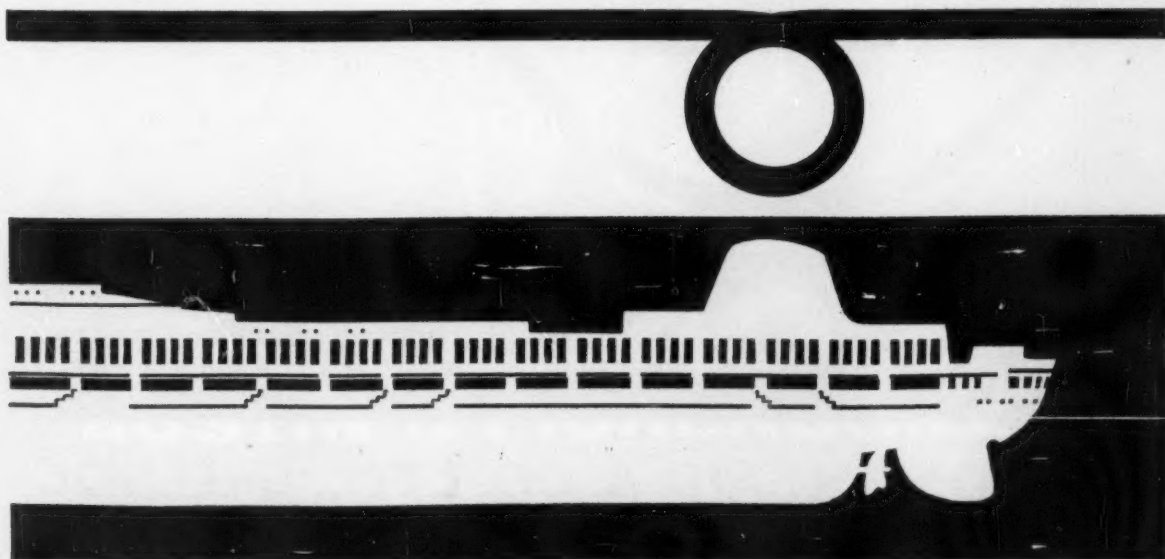
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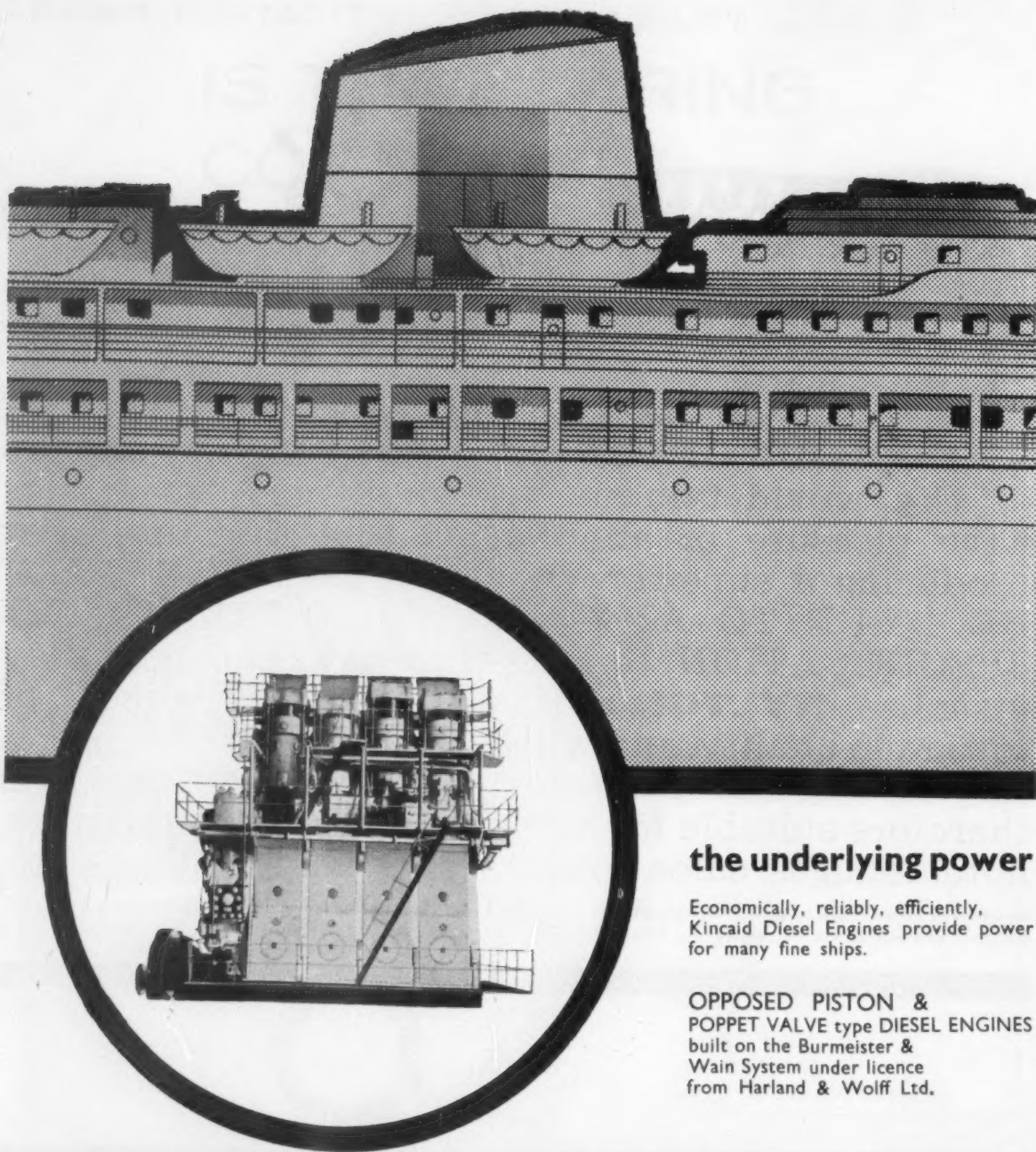
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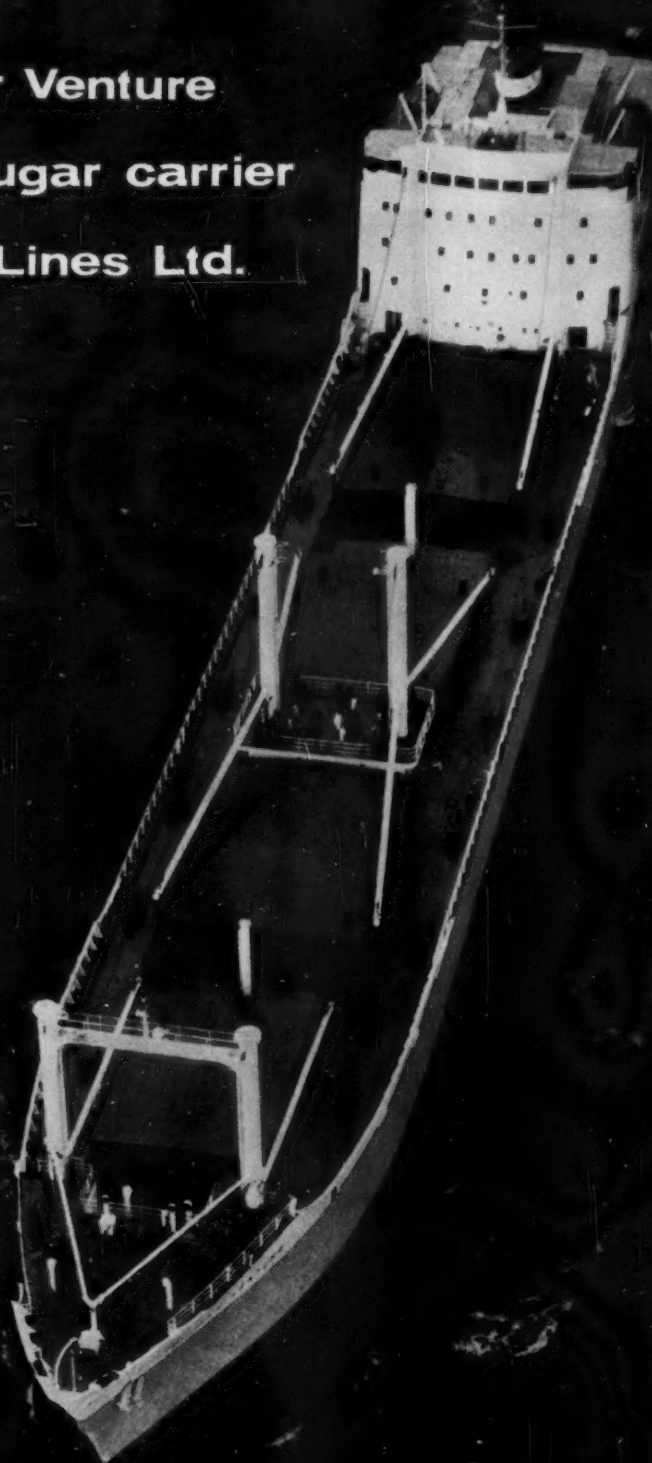
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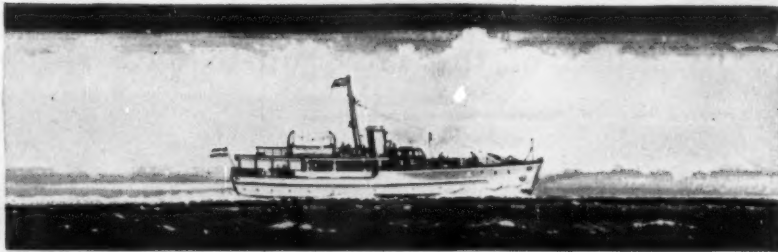
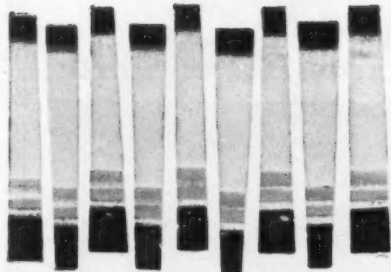
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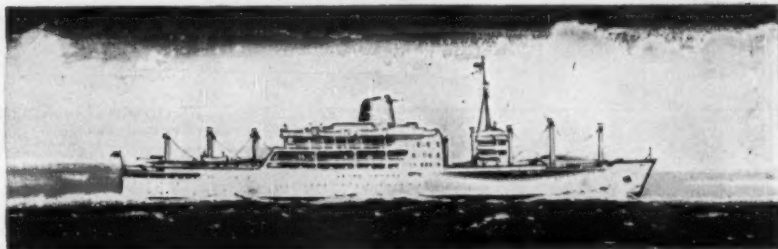
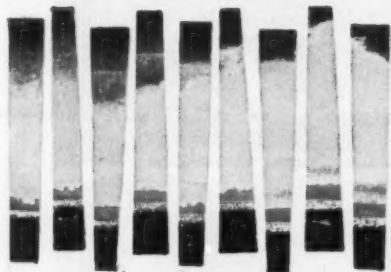
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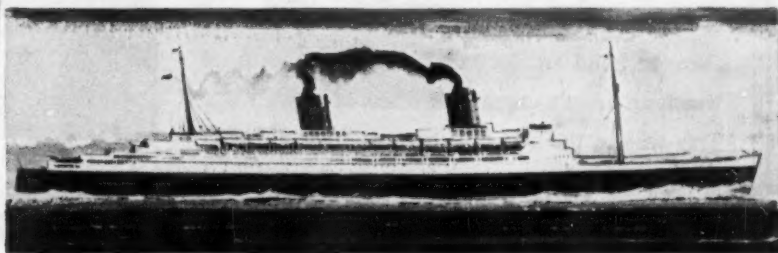
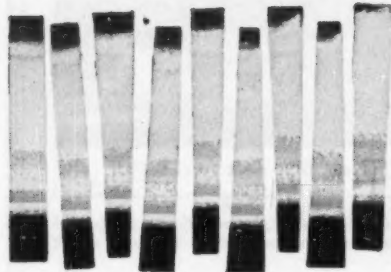
Many types of ship are equipped with Denny-Brown Stabilisers, which are individually designed to meet the special needs of every vessel.



When the Dutch Royal Yacht *Piet Hein* cruises inland waterways, her stabilisers may be detached with the vessel afloat; due to lack of space within her hull they cannot be retracted in the normal way.



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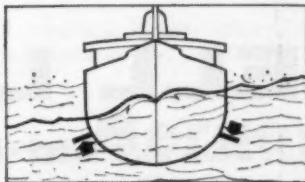


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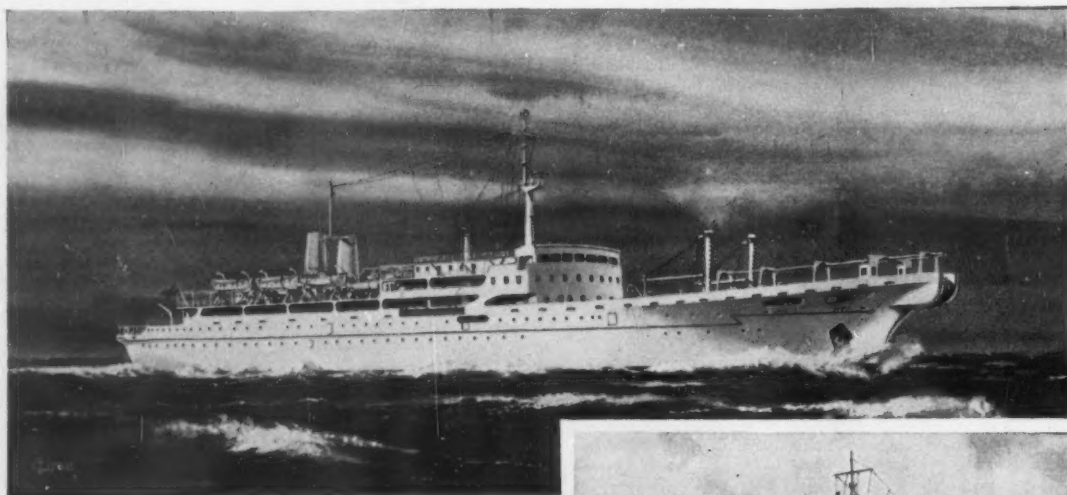
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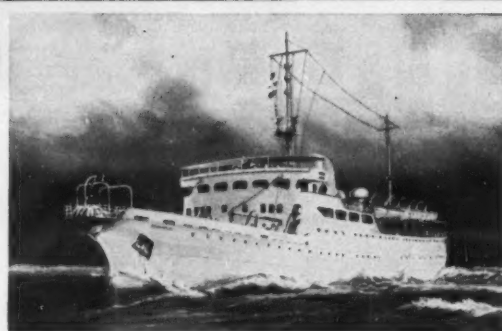
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CAMMELL LAIRD, who have recently completed the Cable Repair Ship 'RETRIEVER' for Cable & Wireless Ltd, have now been commissioned by them to build an 8,000-ton cable-laying ship, of which an artist's impression is shown above.

This will be the first British cable-layer designed to lay and handle modern deep sea communication cables, including the type to be used in the 28,000 mile Commonwealth round-the-world telephone system. A distinctive feature of the ship will be two funnels abreast, to allow the cable working spaces to run through the superstructure so that work can be carried out at either bow or stern.



The Cable Repair Ship 'RETRIEVER'

The builders of these fine new ships have almost completed the first phase of the modernisation of their shipyard, which includes:—

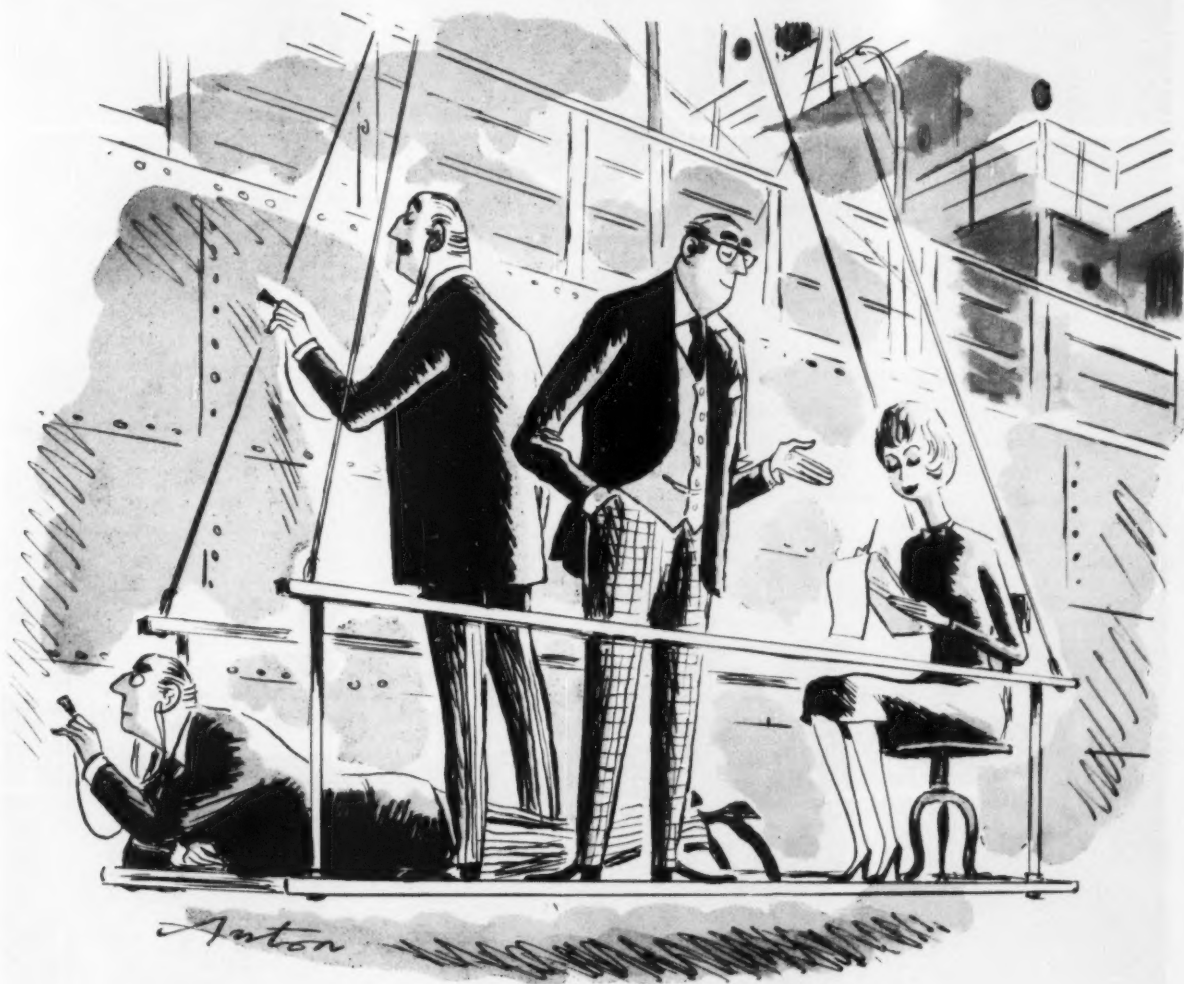
- * new shipbuilding shops covering 11½ acres
- * two 100-ton travelling cranes — the largest of their type in the world — to facilitate the handling of large pre-fabricated sections
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- * a new graving dock 950 ft. long by 140 ft. wide at the entrance
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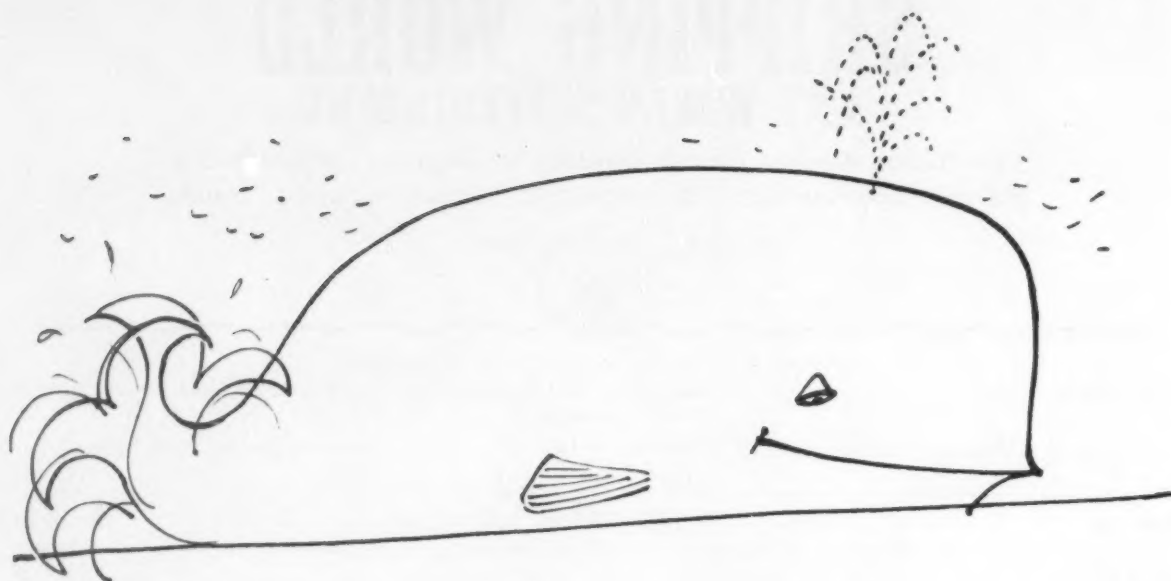
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THE SHIPPING WORLD

NORTH ATLANTIC

THE RECENT sale of the Cunard liners *Media* and *Parthia* and the forthcoming withdrawal of the French Line *Liberté* spotlight the present decline of passenger shipping on the North Atlantic routes. This state of affairs has been brought home even more forcibly by the announcement of the Johnston Warren Line that their passenger and cargo liners *Newfoundland* and *Nova Scotia*, each with accommodation for 150 passengers, are to operate during the winter months as cargo liners with passenger capacity reduced to 12. The *Media* and *Parthia* had accommodation for 250 first-class passengers and the *Britannic*, scrapped at the end of last year, carried 367 first and 624 tourist class passengers. No plans to replace any of these vessels have been announced as yet. When the order for the new French liner *France*, due to enter service early in 1962, was announced, it was stated that she would replace the *Ile de France* and the *Liberté*. These vessels provided a total of 1,022 first, 1,122 second and 677 tourist berths, while the *France* will have accommodation for 410 first and 1,636 tourist class passengers. This reduction in the first-class capacity appears to be very much in line with the ideas of other companies in the North Atlantic trade, firms such as the Holland-America Line, Norddeutscher Lloyd and the Hamburg-Atlantic Line, who have concentrated their efforts on top-grade tourist accommodation combined with versatility of service.

Air travel across the Atlantic is steadily growing in regard to the number of passengers carried, which in itself suggests that passengers prefer air to sea travel (though when this rise is viewed in comparison with the capacity available it is a very different story). Many shipping companies are trying to fight the trend to air travel by reducing fares in off-season periods. The latest example of this is the 25 per cent reduction by the French Line in fares on their New York service between November 1 and February 28. Both the last voyage of the *Liberté* on November 2 and the maiden voyage of the *France* on February 2 will be in this period.

If the present decline in passenger receipts on this major route continues, critics of the new British *Q3* liner may well be right in condemning the policy of designing this vessel purely for North Atlantic service. Owing to her immense size she would be precluded from cruising to many of the more interesting cruise ports. She would be much more of a proposition if she could be designed for a dual purpose, running on the North Atlantic route in season with ample tourist accommodation, and breaking fresh ground on other routes in the off-season period. Recent examples of vessels that have been designed to operate practically anywhere are the P & O-Orient Lines *Oriana* and *Canberra*.

Another point to be remembered in considering passenger traffic on the North Atlantic is the popularity of the southern route from Italy and the south of France to New York. Both the Italia Line and American Export Lines have had very high berth utilisation on this route. In fact the Italia Line flagship *Leonardo da Vinci* in her first year of operation achieved an average figure of 94.46 per cent, and broke the record of the prewar *Rex* by a small margin. The liners on this route can offer what is virtually a cruise, and the companies involved have not been slow to make use of that fact. The Italia Line is replacing the *Saturnia* and *Vulcania* with two new 38,000-grt liners which will give the company even greater capacity, all their tonnage being of postwar vintage. On the completion of *Q3*, Cunard will have four other liners on the northern route, the *Queen Elizabeth*, *Mauretania*, *Caronia* (which is principally a cruising liner) and one or possibly two of the *Saxonia* class. Thus Cunard will only have one new vessel, the *Q3*, which presumably will be given more tourist-class accommodation than previous vessels. They face the prospect of a very unbalanced service, for by the time *Q3* is completed the *Queen Elizabeth* will be too old to be worth bringing into line with current ideas of the best passenger accommodation ratio.

Current Events

Shipbuilding Credits—

IN THE years ahead two factors will assume great importance to the shipbuilding industry. One will be credit facilities, and the other the role of government aid. The main problem confronting shipowners is the means to finance the building of new vessels. Secondhand prices are low and net earnings so marginal at current freight

levels that capital resources are limited, yet there is a continuing need to replace old tonnage. The only sources available are the capital market (which, although loans and interest rates have been eased in a number of countries, is often inadequate to meet the terms of credit repayment demanded) and government loans or building subsidies. To be competitive the yards must be able to

extend these facilities to shipowners. It seems inevitable that the placing of new orders in the next few years, unless the freight market improves more rapidly than is expected, will depend to a large extent on this availability of credit, and in this way it is the direct concern of the shipbuilder as much as the shipowner. It is the conclusion of the latest *Westinform Report* (published in two parts) that, among the several countries which can claim an equality in their standards of production and building methods, the most successful in facing the immediate future will be those which are able to quote both favourable price and delivery and, above all, to offer the best credit terms. The prospect is gloomy for some countries which are already losing their share of export business.

—And Government Aid

GOVERNMENT aid to shipbuilding is another problem which is given considerable attention in this report. Indeed, credits and government assistance are closely related, and in some cases the problem of securing funds to extend sufficient credit has been undertaken for the shipyards by their respective governments. However, it is not easy to draw the line between what may be regarded as a direct aid or subsidy and those forms of assistance which are less obvious on the surface. The report points out that, before the shipbuilding industry overcomes the problem of excess capacity, the competition for new work will lead some governments with large export shipbuilding industries to adopt direct measures to support their yards. Nevertheless, the individual shipbuilding industry itself must decide whether it can stand on its own feet in facing international competition or whether it must ask for government assistance in order to survive. Certain governments, in their anxiety to avoid unemployment and the closure of yards, may be forced to apply artificial measures which, in the long run, will result in the continued imbalance between shipbuilding capacity and realistic demands for new tonnage. The report suggests that it would be more beneficial in the long run if the growth of shipbuilding capacity were curtailed rather than fostered by artificial expedients.

Balancing or Buffoonery?

IN THE annual report of Furness Withy & Co there is a forceful comment on a subject which is a running sore in the shipping industry. This is the balancing charge levied by the tax authorities on ships lost, sold or broken up at a book profit—in other words, a profit over the written down value as calculated for tax. This so-called profit is treated like money in the trading kitty. It is all very neat and tidy, theoretically. But look what happens in practice! Last February one of the group's ships, the Shaw Savill refrigerated liner *Runic*, built in 1950, was lost by stranding on Middleton Reef off the Australian coast. Her insurance brought in something over £1¼ mn. Tax on the balancing charge will absorb no less than £¾ mn, leaving a net amount of £1 mn to go towards a new vessel. But replacement, in fact, will require not £1 mn nor even the £¾ mn originally received from the underwriters, but two and three-quarter million pounds. Whatever depreciation the *Runic* earned in her ten years' trading, the fact remains that it will be far short of the builders' bill. On the factual credit side will be the advantages of a more modern ship—but at what a cost! And for the privilege of earning this highly unprofitable book profit, £750,000 must be handed over to the Inland Revenue. Balancing is what the skilled circus performer does to delight his audience with fine control of physique and eye. The Inland Revenue's action is like the buffoonery of the slapstick clown who not only cuts his

victim's braces but pours a bucket of water over his head at the same time. This accountancy quibble is not the way to help a harrassed shipping industry or to fill the vacant shipyard berths.

Between Nationalised Pincers

AS ANYONE can see whose vision is not twisted by the refracting lens of prejudice, nationalisation in its modern manifestation has doubly failed. It has not matched, to put it mildly, the economic efficiency of private enterprise. And it has, with studied determination, turned away from the concept of national service which has its isolated fling with the Post Office. If the railways had been run to serve the nation, instead of desperately and hopelessly trying to pay their way and damn the consequences, the rates wangle which is threatening to stifle coastwise coal shipments would never have been thought up. That the situation is serious Mr F. A. Leathers, in his statement with the annual report of Wm. Cory & Sons Ltd, makes very clear. With its interests in oil, wharfage, bunkering and brokerage, as well as shipping, this company is in a better position than most to see the question of fuel distribution in the round. Caught between the pincers of railway rate discrimination on the one hand and the policies of the National Coal Board on the other, it is being faced with the prospect of having to withdraw, "with the greatest reluctance", from the coastal collier trade in which its very foundations were laid more than 100 years ago.

A Very Serious Situation

ALREADY the large discharging wharf which this company operated at Purfleet has been leased on a 50-years tenancy for developing oil storage. Two colliers were sold during the year, and in view of the circumstances which Mr Leathers describes "there have not been, and are not likely to be any new ships added to our collier fleet". The latest blow in what seems to be a sort of battle against the coastal collier is an increase about a month ago of between 10 and 20 per cent in what are known as leadage rates, the rail charges from pit to port of shipment. As a similar charge has not been levied on long-haul rail carriage with which the collier must compete the effect is discriminatory and the ship has no redress. It is not only coastwise shipments that suffer but exports as well. As Mr Leathers says, it is not generally understood how much London and the southern part of the country depend upon the supply of coal by the seaborne route, with its freedom from congestion suffered in the winter by the railways and the roads. It is no mere rhetoric when the chairman of Wm. Cory adds these words: "Without question a very serious situation would arise if the tonnage of seaborne coal is reduced to the point where it becomes no longer economical to the distributors to handle this traffic". If the railways and the coal industry were being run to serve the needs of the nation first, such a warning would not go unheeded.

Naval Architects in Sweden

THE SUMMER MEETING of the Royal Institution of Naval Architects is a peripatetic function, and this year it is being held in Sweden at the shipbuilding centre of Gothenburg. The six papers which are being read occupy three days—yesterday, today and tomorrow—and are contributed both by the host country and by the visitors. The opening paper was by Cdr Peter du Cane (managing director of Vosper Ltd) and Mr G. J. Goodrich of the Ship Division, N.P.L. Its title was "The Following Sea, Broaching and Surging", and it dealt with the mathematical and experimental investigation of this problem. The problem of broaching in following seas was a very real

one to every mariner a century ago. Now it is in the main a hazard only to the small ships and yachts in which Cdr du Cane's firm specialises. The paper's conclusions are exploratory rather than conclusive, but it is a fair comment on the experimental work done at the N.P.L. that it was severely limited by the impossibility of running a model in anything other than a direct following sea. Of the other papers, two that may be mentioned form an amusing contrast. One, by an assistant chief ship surveyor of Lloyd's Register, is basically an attempt to explain the latest rules of this classification society on the structure of tankers and ore carriers: the other, by the chief naval architect of Götaaverken, discusses from a shipbuilders' point of view the present steel hull construction rules of Lloyd's Register and Det Norske Veritas, and finds some requirements difficult to understand. Another Swedish paper of interest is entitled "Some Aspects of Automation in Ships": it is hoped to reproduce abstracts of this paper in THE SHIPPING WORLD next week.

Electronic Aids in Surveying

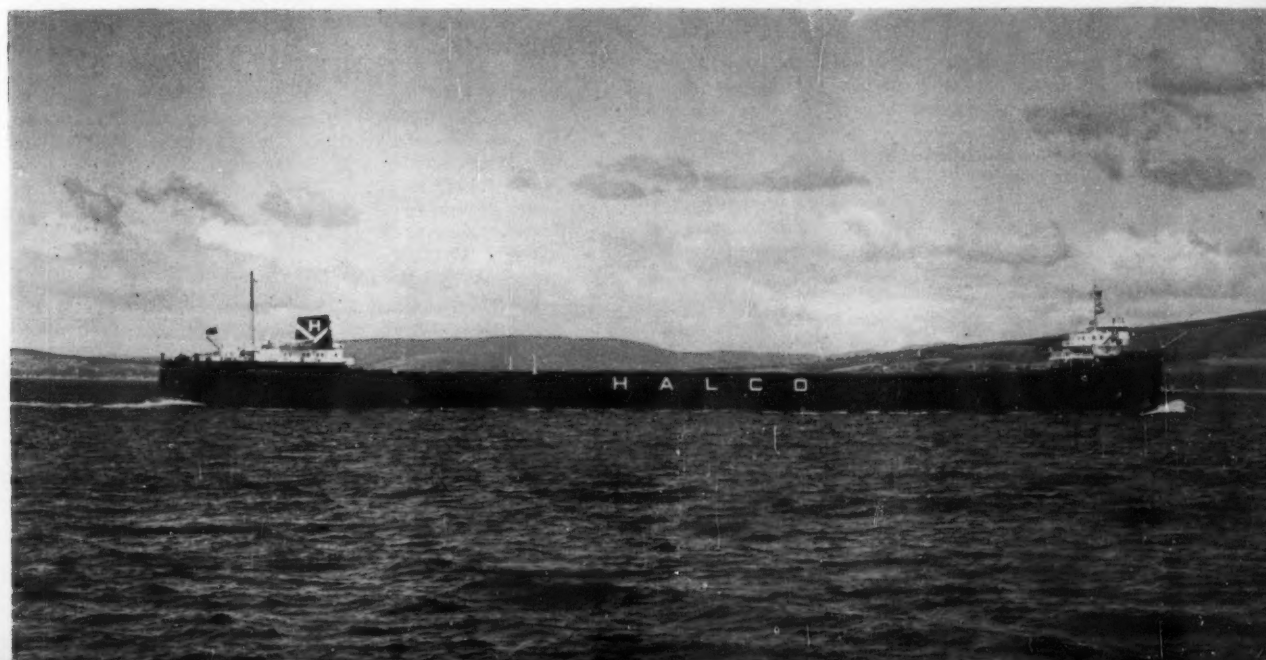
"THE increasing use of electronic aids in surveying work is enabling a high standard of accuracy to be achieved in areas where precise control of position would have been impossible by purely visual methods; in addition, the time absorbed by the use of electronic instruments, for a given task, is considerably less than would be needed were visual methods alone employed." The Hydrographer of the Royal Navy's report for 1960 states that all surveying ships now operating overseas are equipped with a Tellurometer distance measuring outfit; a further three outfits are being provisioned for Home Waters surveying ships, and to provide means of training operators. The development of Hydrodist, a marine version of the Tellurometer, is being closely followed, with a view to fitting it in the smaller surveying craft. Trials at sea have already proved the accuracy and adaptability of this system; it is hoped to use a Hydrodist outfit to control a survey operation during 1961. The intensive use of Two-Range Decca in surveying operations continues to prove that this means of position-fixing for ships represents one of the major advances of recent years. All surveying ships overseas are fitted with this aid, as also is HMS *Scott*, which operates in home waters. A recent development of Two-Range Decca now provides lane identification; this new system known as Lambda, is being fitted in HMS *Cook*, and will be fitted in HMS *Vidal*

during 1961. The new accurate ranging Surveying Radar is now a standard equipment and is fitted in eight surveying ships and craft; a ninth ship is being fitted during 1961. With careful calibration, it is hoped that the accuracy of the set can be increased to ± 10 yards. New type echo-sounders, Admiralty Types 771 and 772, using dry-paper techniques which eliminate distortion in the final record, are coming into service and all ships and craft will be equipped as they come in for refitting. "Surveying is now in the electronic age, but of necessity the traditional methods involving theodolites, sextants and station pointers are still employed to provide checks on the absolute accuracy of the new methods."

Tankers for Demolition

OF INTEREST among the ship sale news this week has been details of the acquisition by the British Iron & Steel Corporation (Salvage) Ltd of five post-war built BP tankers for demolition in British shipbreaking yards. The ships are the *British Baron*, *British Marquis*, *British Marshal*, *British Success* and *British Supremacy*. Their disposal means that the BP Tanker Co Ltd have sold 19 motor tankers of fairly modern vintage for breaking up this year, all to BISCO. The move started with the *British Might* (SW 25.5.61), and continued the following month with a block of six vessels with names incorporating patience, enterprise, commerce, fortune, venture and rose (SW 21.6.61). A further group of six vessels were reported sold (SW 2.8.61), the *British Caution*, *British Earl*, *British Empress*, *British Ensign*, *British Princess* and *British Virtue*, and last week came the disposal of the *British Fern*, and her allocation to the Blyth yard of Hughes Bolckow Ltd for demolition. In addition BP have sold the *British Warrior* to Norwegian trading buyers who decided to rename her *Anne*. These sales are, of course, no more than further evidence of definite efforts being made by the major oil companies to get rid of their obsolete tankers. While the disposal of ships built in post-war years may be something of a surprise, the tanker companies are no doubt taking the view that they are better sold for breaking up than cluttering up the tanker market under some flag of convenience.

The new Canadian-owned bulk carrier "Leecliffe Hall", 25,000 dwt, built by the Fairfield Shipbuilding & Engineering Co Ltd, Govan, for the Hall Corporation of Canada for service on the Great Lakes



ON THE "BALTIC"

A SERVICE SECOND TO NONE

By BALTRADER

IF VARIETY is the spice of life, it must be hard to find a profession more filled with varied interest than shipping, and this is particularly so in the case of tramp shipping. An owner with several vessels scattered about the world may at one moment be weighing up the pros and cons of a trans-Atlantic grain cargo as compared with coal from Hampton Roads to Japan, or sugar from Cuba to the same destination, and a moment later be giving equally serious consideration to the possibility of putting another of his ships in for flour from Australia to Ceylon, or a twelve months' timecharter in the Far East. He is in this example working two ships on opposite sides of the world and yet, of course, the strength or weakness of one market will sooner or later affect the other, and he therefore tries to picture in his mind the overall rather than the local state of the markets.

This is where the Baltic Exchange provides a particularly valuable service, for each day there are gathered under one roof either the direct or indirect representatives or agents of almost every shipowner and charterer in the world, and in these conditions members can with care secure a more balanced and detailed picture of the freight markets than is obtainable in any other shipping centre. The information circulating there is gathered by cable and telephone from every corner of the globe and is consequently both accurate and up to the minute, and any overseas charterer or owner who supports the London market and the Baltic exchange can feel confident that he will receive a service from a source of information second to none.

Mobility of Modern Tonnage

This information, of course, does not merely relate to the rates of freight being paid on any particular market at any time, or the trend of rates whether up or down. There is so much more background information which an owner or a charterer must have if he is to work the markets intelligently. An owner, for example, wants to hear about strikes, congestion, big new sales of grain, improved or worsened charter terms before and not after he fixes, and charterers, too, need warning of competitors' quotations, possible shortage of tonnage and other vital information which will affect their approach to the market. It is just these advices which the Baltic Exchange, with its twice daily sessions on the floor, is best able to provide.

While on the subject of securing the widest possible market coverage, it is worth noting that the need of owners in this respect is greater than ever today due to the increased mobility of modern tonnage. The layman has never failed to be surprised at the amount of time tramp ships spend at sea without any cargo on board, but the large fast and economical vessels of the present generation can and do proceed for even greater distances in ballast than would normally have been contemplated by the 10-knot 10,000-tons war-built vintage tramp ship. The owner of a 20,000-tons bulk carrier in Japan, for example, will think nothing of ballasting back to Hampton Roads for a return cargo of coal, and yet before fixing he will have kept a watchful eye on the North Pacific, Australian and South African markets. He therefore requires comprehensive reports on many markets, although he may only have one ship to fix. And the London broker is well equipped to provide the information and service required.

Growing populations and a steady increase in the volume of world trade are among the many factors which

have contributed to the improved freight market conditions this year, but as so often is the case, politics have also played an important part. In particular we are constantly reminded of the example of Cuba, whose sugar exports to China and Russia have provided tramp tonnage with much valuable employment over long distances this year, whereas previously the bulk of Cuba's sugar moved to the nearby United States. This, of course, has not been the end of the story, for America has been obliged to import sugar in larger quantities from other sources of supply such as the Philippines, and even this year from Queensland, and shipping has again derived benefit.

For many years now the almost complete cessation of trade between China and Japan has meant that the latter country, particularly, has had to look further afield for bulk commodities normally obtainable from China, but in recent months there have been signs that Sino-Japanese trade has begun again though on a restricted scale. Obviously, from a purely shipping point of view, the more cargo that moves to Japan over a long distance the more the freight markets benefit.

The Freight Markets

The strength of the market in the Atlantic area in the past week has been shown by improved rates of freight in spite of a comparatively small volume of business, but a good number of vessels were chartered from Atlantic United States to the United Kingdom at up to 4s per ton more than recently paid. Australian rates have been about unchanged, but North Pacific charterers have had to improve their rates slightly. Employment to Japan has been less active than of late; inquiry for Chinese account being only a shadow of its size in the earlier months of the year.

Fixtures include: *Rurysdael*, 9,500 tons, U.S.N.H. to Hull or Belfast, 52s heavy grain, September 20/30; *Bretwalda*, 10,600 tons, U.S.N.H. to Avonmouth, 50s heavy grain, September 21/October 9; *Wandby*, 15,000 tons, U.S.N.H. excluding Albany and New York to London, 42s 6d heavy grain, 3,000 tons daily, discharge free, September 25/October 5; *Runswick*, 11,000 tons, U.S.N.H. to Belfast, 52s 6d heavy grain, September 29/October 12; *Dea Brovig*, 10,400 tons (tanker), Great Lakes, completing St Lawrence to Amsterdam, Rotterdam or Antwerp, \$109,000 f.i.o., heavy grain, October 5/20; *Kadmos*, 20,000 tons (tanker), U.S. Gulf to basis Amsterdam or Rotterdam, \$91,500 heavy grain, September 23/October 5; *Mogen*, 20,000 tons, Hampton Roads to Japan, \$9.25 coal, six days for loading and discharge, three voyages commencing December/January; *Santa Constance*, 12,200 tons, North Pacific to Japan, Tokyo-Hakata range, \$7.25 heavy grain, November 17/December 5; *Jessie*, 15,000 tons, and *Dona Margarita*, 11,500 tons wheat, U.S. North Pacific to Karachi, \$9.35, September; *Cassian Mariner*, 13,500 tons, Newcastle N.S.W. to Moji/Chiba range, 41s f.i.o. coal, October; vessel 85,000 tons, Mauritius to London, Liverpool or Greenock, 67s sugar, September 11/30. Time charters include: *Finnemore Valley*, 14,610 dwt, 710,000 cu ft bale, 16 knots on 26 tons H.V.F. oil plus 1½ tons diesel, 25s per month one U.S. Gulf round, delivery Antwerp, September 6/11; redelivery U.K./Continent; *Trecarrell*, 10,250 dwt, 562,000 ft bale, 13½ knots on 19 tons fuel oil, 25s per month, one trans-Atlantic round, delivery passing Inistrahull Island, redelivery U.K./Continent, September 5/9 delivery.

NEWS FROM OVERSEAS

From THE SHIPPING WORLD'S Own Correspondents

American Shipping Subsidy—Moves

AFTER PROTRACTED committee hearings, the U.S. House of Representatives has passed a bill to discourage the practice of certain American shipowners who have obtained permission to transfer their ships to foreign registry, only to return them to the American flag after rebuilding them abroad. The bill would exclude from participation in the benefits of the Cargo Preference Act ships built or rebuilt abroad and transferred to U.S. registry until three years from the date of such transfer. It has still to be passed by the Senate.

Two moves have lately been made to extend the scope of shipping subsidies. To counter recent action by Canada in subsidising its Great Lakes fleet, a bill has been introduced in the House of Representatives to permit operating and construction subsidies to be paid American vessels plying those waters. Meanwhile, with coastal shipping apparently near extinction, Pope & Talbot Inc of San Francisco have requested the Secretary of Commerce to extend subsidy aid to offset their losses in intercoastal operation. These amounted to \$600,000 for the first half of 1961. They ask the Secretary to implement President Kennedy's announced support of the intercoastal trade by "recommending and actively supporting a subsidy for domestic shipping."

Tanker Building and Ore Operating

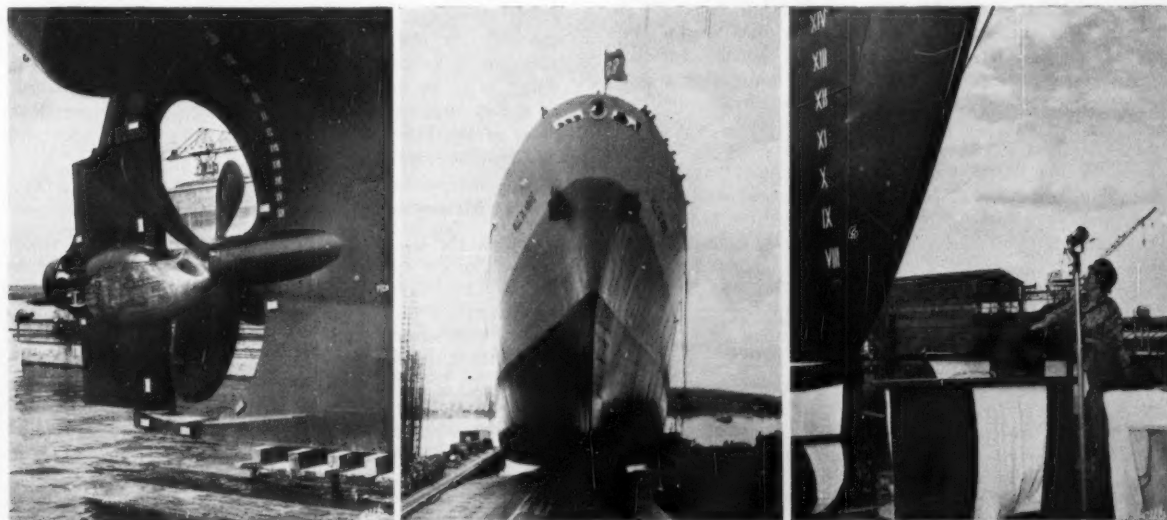
ONE LARGE TANKER was delivered and another launched by the Sparrows Point yard of the Bethlehem Steel Company in a recent four-days period. On August 18 the Socony Mobil Oil Company accepted the *Mobil Meridian* of 46,692 dwt, the largest vessel in their American-flag fleet. With a length of 736ft and a capacity of 395,321 barrels, she will ply chiefly in her owners' coastwise service. On August 22, the yard launched the tanker *Gulf supreme* of 29,150 dwt, tenth and last new ship in the American-flag fleet-replacement programme of the

Gulf Oil Corporation. This 645-ft ship is one of six of this size, the other four having been of 32,600 dwt. Gulf also jumboised nine T2-type tankers in the course of the programme. As a ship operator, Bethlehem Steel has disclosed that it plans to develop a new service between the new port of Buchanan, Liberia, and U.S. Atlantic ports, principally Sparrows Point and Philadelphia. The service, expected to begin in 1963, will transport iron ore from recently proved Liberian deposits.

Israeli Expansion

THE Somerfin (Israel) Company is at present engaged in a large-scale expansion programme, intended to raise its investment in Israeli-flag ships to over \$20 mn. Recently the firm ordered a \$5 mn ferry in Belgium for delivery in March 1963. Fully air-conditioned, and with a speed of 21 knots, she will be able to carry 540 passengers and 140 cars between Haifa and Brindisi. The company has applied to register this vessel under the name *Hagesher* (i.e. "The Bridge"). It is learned that Government approval has in the meantime been granted for the order by Somerfin of two citrus carriers to be built in Italy or Spain. These ships will be of 6,500 tons and their cost will be \$2.7 mn each. Meanwhile, the first Somerfin tuna clipper, *Dagit*, taken over in Dieppe six months ago, has reached Haifa.

Somerfin-Negev Phosphates-Far East Line is the name of the new shipping company jointly set up by Negev Phosphates Ltd and the Somerfin A.G., Geneva, for the purpose of chartering two vessels to ship phosphates from Eilat harbour. The first ship, the 12,165-dwt Greek vessel *Master George*, is taking the first consignment of the 75,000 tons of phosphate ordered by Japan for shipment during 1961-62. The rates charged by Zim vessels, which were too small to carry bulk cargoes efficiently, were based on returning with empty holds, which made the price rather high and led to complications in the execution of export orders. On the other hand, Somerfin rates are based on the assumption of finding return cargoes of raw



LAUNCH OF THE FRENCH CARGO SHIP "VILLE DU HAVRE"

The cargo ship "Ville du Havre", 12,000 dwt, was launched last month at the Le Trait shipyard of the Ateliers et Chantiers de la Seine Maritime for the Nouvelle Compagnie Havraise Péninsulaire. The illustration on the left gives an excellent view of the vessel's Pleuger rudder. On the right, the sponsor is seen at the naming ceremony. The "Ville du Havre" is due to enter service towards the end of the year



JAPANESE-BUILT FOR TURKISH OWNERS

The Mitsubishi Shipbuilding & Engineering Co Ltd, Shimonoseki shipyard, has delivered the cargo motorship "Gazi Osman Pasa", 5,305 dwt, to the Denizcilik Bankasi T.A.O., of Turkey, who ordered the vessel in conjunction with the Trans-Atlantic Financing Corporation. The vessel is powered by a type 5 SAD 60 Uraga Sulzer diesel engine and reached a speed on trials of 15.63 knots. A sister ship, to be named "Mithat Pasa" is at present under construction at the yard. These two vessels are part of a ship construction programme for Turkish owners which includes two more vessels of the same size as "Gazi Osman Pasa", two of 7,900 dwt and one 21,000-dwt tanker.

materials from the Far East. The possibility is also under study of accepting cargoes in transit for Aegean and Black Sea ports.

According to a review of economic conditions in Israel during 1960, issued by the Bank Leumi Le-Israel, this country's merchant marine increased its activity by some 20 per cent, following the addition of new vessels. By the end of 1960 the merchant fleet consisted of 52 vessels with deadweight tonnage of 462,000 tons, some 44 per cent more than in 1959. The average age of vessels in the merchant fleet fell from 7.5 years in 1959 to 5.5 years in 1960. Thus maintenance and repair costs were low, and high speeds gave Israeli vessels the "edge" over competitors. If the growth in average speed of ships to 14.8 knots and the increased cargo capacity are taken into consideration, it may be estimated that the fleet's potential haulage capacity increased by one-third during 1960.

Russia-Japan Passenger Service

AS ANTICIPATED, Japan has been granted increases in sailings and the tonnage limit of individual vessels employed on the joint Japanese-Russian service between Japan and Nakhodka and the right to inaugurate a passenger service on the route. This was disclosed by a spokesman of a delegation on his return from Russia where negotiations were held for a revision of the service. Japanese operators had protested against the Russian action in beginning a passenger service on the route in May this year without prior notice. The spokesman said that sailings will be increased from 12 to 20 per year and that the tonnage limit of cargo vessels engaged had been increased from 4,000 to 6,000 dwt. Kawasaki Kisen, Yamashita Kisen and Iino Kaiun are operating the Japanese sailings on a joint basis.

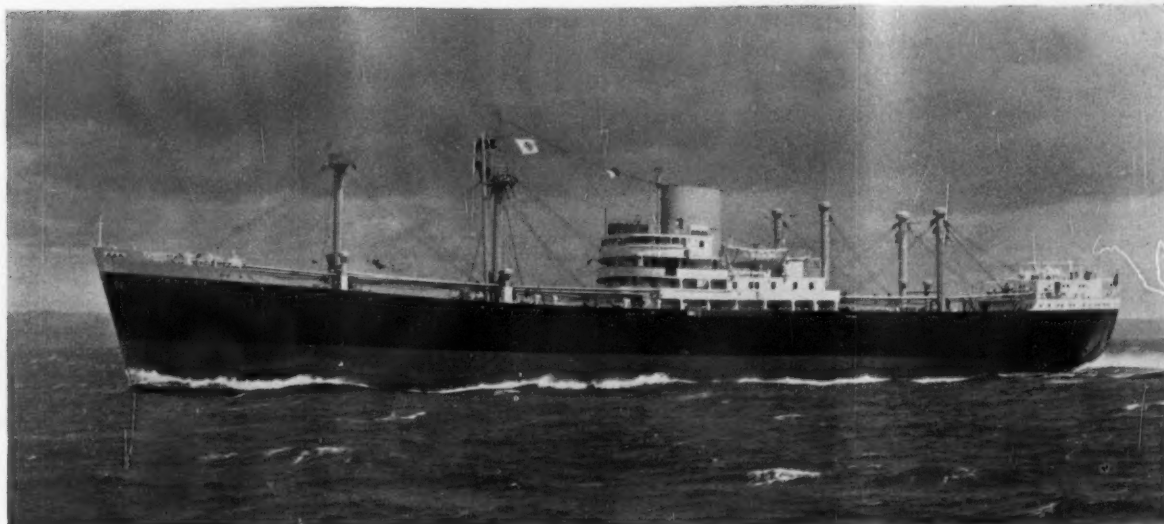
On the Japan-Black Sea service NYK, the sole Japanese operator, has decided to replace the 14-knots vessels hitherto employed with 16-knots vessels of the company's "A" class. The first of these vessels was scheduled to leave Kobe on September 2 to inaugurate a faster service. It is estimated that the sailing time from Japan to the Black Sea will be reduced from the present 48-49 days to 46-47 days. Singapore will be the only port of call between Japan and Port Said. This development is part of a general re-allocation of faster vessels on the company's services that is being made as new vessels become available.

Russian Hydrofoil Craft

It is understandable, but perhaps unfortunate, that the rather overworked name of *Sputnik* has been conferred on the latest of the impressive series of hydrofoil motorboats which took pride of place in the shipbuilding section of the July Soviet Exhibition at Earls Court in London, for she is by no means a satellite, or fellow traveller, which is what *Sputnik* means, and deserves full attention on her own merits. Built at the Krasnoye Sormovo shipyard, at Gorki, on the river Volga, the *Sputnik* was described by a correspondent in *Pravda* as having seating accommodation for 300 passengers—twice as many as in the preceding (*Fetsor*) type—and as weighing rather less than one-thirtieth as much as a three-decked river boat of conventional design with the same passenger capacity, besides being very much faster, with a speed of 80 knots, and consuming far less fuel. As in previous hydrofoil types, the hull is of aluminium-magnesium alloy, but the *Sputnik* differs from her riveted predecessors in being all-welded. She has run trials on Gorki Lake and the river Danube. On the slips in the Krasnoye Sormovo shipyard is a second hydrofoil boat of the same name, which is to be more solidly built and somewhat heavier, as she is intended for use not on rivers but on the large lakes of the U.S.S.R. which are virtually inland seas, and on the open sea.

Safety Measures in Greenland Waters

AFTER the tragic loss of the Danish passenger vessel *Hans Hedtoft* on her maiden voyage to Greenland in January 1959, a number of safety measures for navigation in Greenland waters were taken. In particular more airplanes were employed in ice patrol and ice pilot service. In addition, a system of surveillance has now been introduced. All Danish vessels sailing north of the 57th parallel and less than 250 nautical miles from the Greenland coast are obliged to call the Danish naval command at Groennedal, Greenland, twice daily (four times when in the specially dangerous waters near Cape Farewell) stating their position, route, where bound, and speed. Should a vessel fail to report, a search is immediately begun and the authorities will then know approximately where to start this search. All Danish ships have to comply with these rules, and vessels of all other nations are invited to do the same.



Cargo Vessel "Dumurra"

LATEST "D" CLASS SHIP FOR ELDER DEMPSTER LINES

THE LAST of a series of six single-screw vessels built for Elder Dempster Lines Ltd has been delivered. This vessel, the *Dumurra*, 10,000 dwt, has been built by Alexander Stephen & Sons Ltd, and is powered by a five-cylinder Doxford oil engine giving her a speed in service of 14 knots. Each of the ships bears a West African place name beginning with the letter D. They have been specially designed by Elder Dempster Lines for their services from the United Kingdom, the Continent, Canada and the U.S.A. to West African and other ports.

The principal particulars of the *Dumurra* are as follows:

Length o.a.	460ft
Length b.p.	430ft
Breadth moulded	63ft
Depth moulded to upper deck	29ft 4in
Draught, extreme	26ft 1in
Deadweight	10,000 dwt
Gross tonnage	6,100 tons
Machinery output	5,500 bhp
Service speed	14 knots
Cargo capacity:	
Grain	621,180 cu ft
Bale	561,010 cu ft

The *Dumurra* has been built on conventional lines with machinery amidships. There are five cargo holds, three forward of the machinery space and two aft.

Nos 1, 2, 4 and 5 holds are arranged for general cargo and No 3 hold is fitted with four deep tanks separated from each other by cofferdams, enabling different types of bulk cargo to be carried simultaneously, such as palm oil, which requires heating during the voyage, and groundnut oil, latex and glycerine, as well as general cargo and water ballast when necessary.

No heating coils are fitted in these deep tanks. Heating is provided by a circulating system whereby cargo oil is pumped from the tanks to heaters in the engine room and then returning back to the tanks until a suitable condition for discharge is reached. In the upper tweendeck there are four smaller tanks also suitable for the carriage of groundnut oil, latex, glycerine, or general cargo, etc. The shelter deck has been designed to give ample space for deck cargo, and the hatches are fitted with the owners'

steel pontoon type lift-out hatch covers.

For handling the very wide range of cargoes the following derricks are fitted—two at 3 tons; eight at 5 tons; two at 7½ tons; two at 10 tons; two at 20 tons and one at 50 tons. These derricks are all served by Laurence Scott self-contained electric winches.

Hold ventilation is effected through a Thermotank mechanical exhaust system which works in conjunction with a natural supply system. Humidity recorders in the wheelhouse give a continuous indication of the moisture in the air in the cargo holds.

All cargo spaces, including the engine room, are protected with a Pyrene-E.D.-Hol combined smoke detecting and inert gas fire extinguishing system with an hourly capacity equal to 30 per cent of the total volume of the largest hold and tweendeck. This system, which was designed by Elder Dempster Lines Ltd, was first installed



The island table in the combined wheelhouse and chartroom contains most of the navigational aids, including the Arma Brown gyro unit, radar display unit, direction finder and an echometer reader



A view of the officers' dining saloon, looking forward

in their cargo ship *Oti* (SW, 9.5.56). The gas is of a non-poisonous nature and provided that the personnel are in the open, clouds of gas can envelope them without ill effect, notwithstanding the effectiveness of the gas for fire extinguishing.

The generator and all its controls are located in a room on the shelter deck at the after end of the midship deck-house, the gas mains are led fore and aft to the control stations in the hold ventilation units and the gas is discharged into the individual cargo spaces via the hold ventilation ducting and instantly smothers any fire. The inert gas generator is of the latest design, built by W. C. Holmes, Huddersfield, and incorporates a combustion chamber and cooling tower with blower and fuel pump driven by an Armstrong Siddeley air-cooled diesel engine.

The electrically driven direct-grip anchor and mooring windlass with W.T. enclosed motor, and also one pair of automatic lever roller bowstoppers fitted on forecastle deck forward of the windlass, have been supplied by Clarke, Chapman & Co Ltd. The electric mooring winch fitted on the poop deck has been supplied by Laurence, Scott & Electromotors Ltd.

The accommodation throughout the ship is of a high standard designed to give comfort in the excessive heat and humidity of the tropics. The cabin bulkheads and linings are of plywood faced with Formica, the colours of which give a cool and pleasant appearance. The alleyways are faced with Perstorp to give the same effect. All the midships accommodation is air conditioned, the equipment being supplied by Thermotank Ltd. For the officers there is a permanent swimming pool 17ft long by 12ft wide and 6ft deep. The pool is convenient to the boat deck where there is ample space for deck chairs and games.

Navigational Equipment

An interesting feature of the *Dumurra* is the large combined wheelhouse and chartroom, a layout which is becoming very popular and has much to offer in terms of convenience and economy. Wide windows and curved Perspex windows at each corner reduce the blind spots to a minimum. The island chart table of the owners' latest design contains drawers, locker, radar display unit, direction finder, echometer recorder, Arma Brown gyro unit on the aft side and all the electrical equipment, tele-

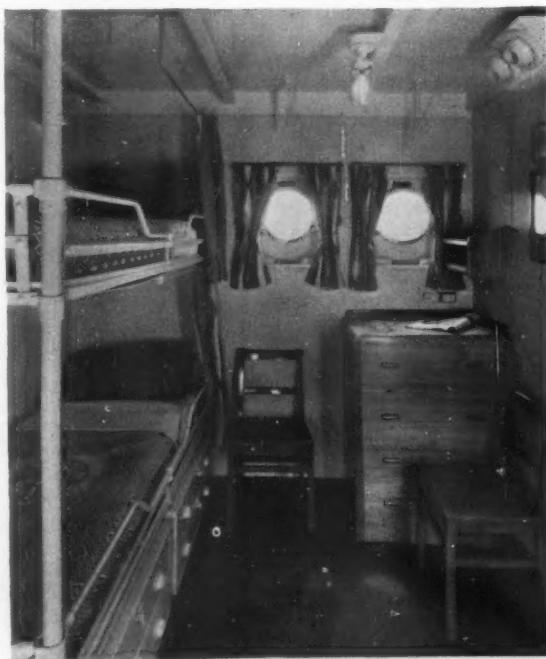
phones, light indicators and switches, auto whistle control on the fore side. An amber Perspex screen is fitted over the chart table.

Other fittings in the wheel-house include smoke detecting and humidity recorder cabinet, gyro compass console, telegraphs, Kent clear view screen, rudder indicator etc. The radio office is situated abaft the wheel-house. The Marconi installation includes Oceanspan VII transmitter with Atalanta R/T receiver, Reliance emergency transmitter, Alert emergency receiver, Autokey unit, Seaguard auto alarm. Other items supplied by Marconi are Lodestar auto-

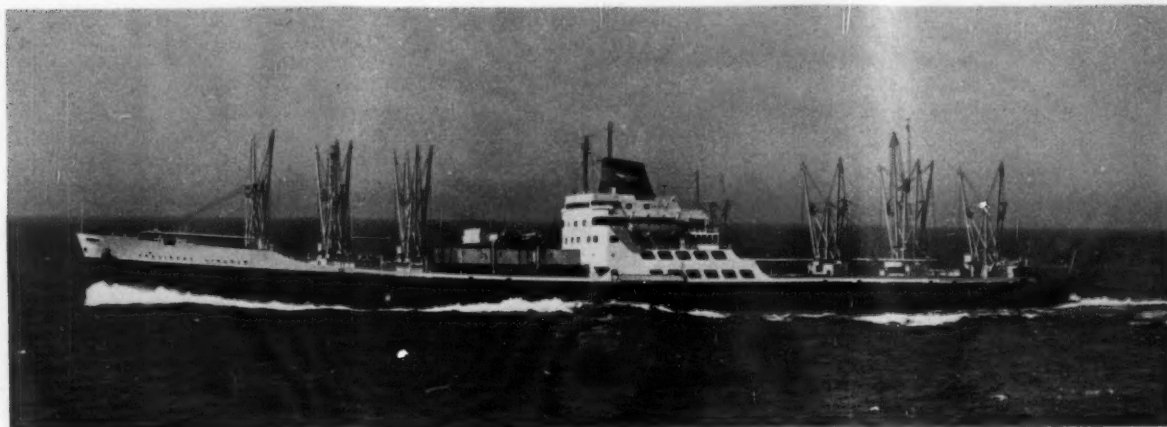
matic direction finder (in chartroom), Radiolocator IV A radar, broadcast equipment etc.

The main propelling machinery consists of a five-cylinder Hawthorn-Doxford oil engine giving the ship a speed of 14 knots at 115 rpm in service conditions.

Four diesel generators supply the current for lighting and power throughout the ship, each with an output of 200 kW when running at 525 rpm and supplying direct current at 220 volts. Two boilers are supplied, one waste heat boiler using main engine exhaust gas and one oil fired boiler to furnish steam for ship's services and bulk palm oil heaters. All the auxiliaries are electrically driven with the exception of the boiler feed pumps and the palm oil circulating and discharge pumps.



A double cabin for seamen



The "President Lincoln"

FAST AMERICAN CONTAINER CARGO LINER

THE FIRST of two Searacer type container cargo liners ordered from the Bethlehem Steel Company, San Francisco, sailed recently on her maiden voyage from Los Angeles for Japan, Korea, Okinawa and Taiwan. This vessel, the *President Lincoln*, 14,085 dwt, is owned by American President Lines, and was built at a cost of about \$16,000,000. The designers were George G. Sharp Inc. The keel of the *President Lincoln* was laid in 1959, she was launched in September 1960 and delivered last May. A sister ship, the *President Tyler*, has just been delivered. These vessels are powered by steam turbine machinery and have a service speed of 20 knots.

American President Lines have been carrying cargo-filled containers on the decks of passenger liners modified to handle them for close on three years, two notable vessels being the *President Buchanan* and *President Taylor*. In the *President Lincoln* the containers are carried in the holds. The trans-Pacific operation is designed to be a pilot experiment, following which APL will make decisions as to expansion. On her maiden voyage the *President Lincoln* carried the largest single shipment of containers in multi-port foreign operations.

The principal particulars of the *President Lincoln* are as follows:—

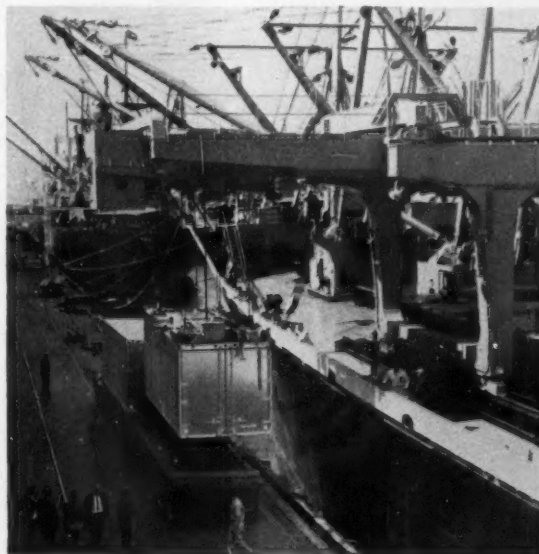
Length o.a.	563ft 7½in
Breadth moulded	76ft
Depth to main deck, moulded	44ft 6in
Draught	31ft 7in
Displacement	22,620 tons
Deadweight	14,085 tons
Gross tonnage	13,223 tons
Net tonnage	8,008 tons
Machinery output	17,500 shp
Service speed	20 knots
Cargo capacity:	
Bale	718,600 cu ft
Non-container cargo	521,400 cu ft
Container space	140,900 cu ft
Refrigerated cargo	25,900 cu ft
Convertible cargo oil tanks	30,400 cu ft
Cargo oil tanks	58,600 cu ft
Passengers	12
Officers and crew	60

The *President Lincoln* has been built as a full-scantling vessel on the transverse system of framing, with a hull form for high speed at minimum power. The main deck-house is slightly aft of the amidships position. Nine watertight bulkheads, extending from the tank top to the

main deck, subdivide the ship between the fore and after decks into seven holds. Forward of the machinery space are four cargo holds, one of which is specially designed and fitted for the stowage of containers or cargo vans, each having a capacity of 1,130 cu ft and a maximum weight capacity of 23 tons.

Aft of the machinery space are three cargo holds. One is primarily for refrigerated cargo and another is so designed that it can easily be converted to a second container hold when necessary.

The *President Lincoln* has six refrigerated compartments which will accommodate 25,853 cu ft of chilled and frozen products. They are served by overhead gear and conveyor, as well as by side ports to ensure fast handling. The refrigerated compartments are encased in foamed-in-place, moisture-proof Polytron, in place of conventional cork or fibreglass. Bulk liquid is pumped by powerful shipboard pumps to eleven tanks having a total



Container being hoisted for stowing away. Note the tubular struts on the 10-ton derricks

capacity of 1,465 tons—two of the tanks are stainless steel clad. Bulk liquids can be loaded and discharged, with general cargo gear in full operation, through 6in pipes leading from the weather deck to all deep tanks.

The general cargo holds are dimensioned to provide maximum flexibility and equal distribution of cargoes so as to reduce turnaround time. Modern dehumidification equipment keeps cargoes moisture-free in any climate and thus prevents sweat, rust, mildew or label damage.

Container Hold

Of particular interest is the all-container hold. Built-in cells are designed to take 20-ft APL containers and will accommodate vertical tiers of six 6A cargo vans six abreast for a total of 108 containers below, plus 18 on deck. The overall capacity of containerised cargo is 140,868 cu ft. The 25-tons gantry crane serving this container hold is 76ft wide and 18ft high. Designed and built by Lake Shore Inc, it is of the retractable-boom type. The gantry structure is of U-type and travels on rails which are supported by the deck: the retractable boom likewise travels on rails mounted on the gantry structure. The trolley, which incorporates the hoisting machinery, consists of four drums and a system of wire rope and sheaves that support a spreader with latching mechanisms for engaging the containers. According to APL, this ingenious gantry crane can lift cargo containers on and off the ship in a 2½-minutes cycle.

The design of the remaining cargo gear is similar to that installed on the nuclear ship *Savannah*. Electro-hydraulic winches and power-positioned 10-tons derricks are said to be the most modern yet devised. Derricks serving the six holds outside the range of the gantry are supported by tubular or truss structures, in lieu of conventional masts and kingposts. Among the advantages of the free-standing pipe structures are: reduction in weight of about 50 per cent, compared to kingpost and mast arrangement; better visibility from the wheelhouse;

and a substantial lessening of clutter and hence an improvement in appearance.

The wheelhouse of the new ship differs from that on a Mariner-type vessel in that its deck has been raised an additional 10ft for improved visibility over the bow. Large Kearfott windows on the front and each side of the wheel house further enhance the visibility. Equipment includes Sperry automatic electric type steering control and Hyde Windlass Company hand-operated electro-hydraulic tele-motor control.

Accommodation for the crew of 60 and 12 passengers as well as public spaces are air conditioned by a York high-pressure induction system. The interior arrangement of the passenger quarters is said to be more luxurious than those of many passenger ships.

All hatch covers can be operated by push-button, and all have detachable pins so that they can be opened in halves or thirds, thus providing maximum flexibility as well as protection against rainstorms. One man operating a lever can open and close any one of the ship's 21 hatches in two minutes or all of them simultaneously in seven minutes.

Propelling Machinery

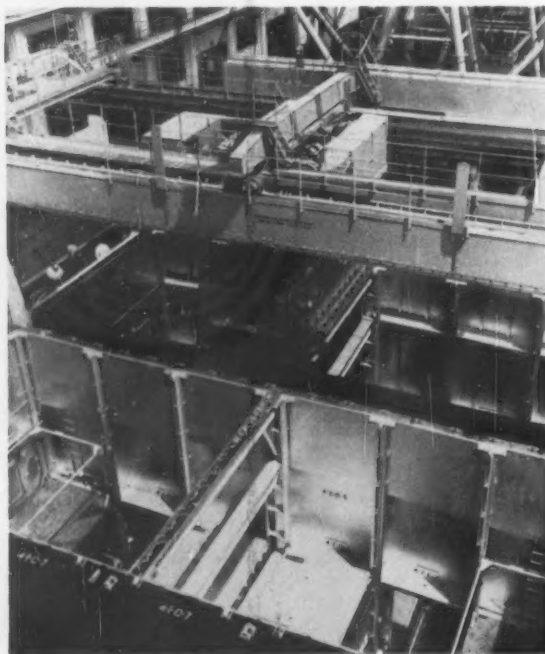
The main turbines for the *President Lincoln* were manufactured by the Bethlehem Steel Company. They are designed for a normal output of 17,500 shp at about 102 rpm, the maximum rated shaft horsepower being 19,250 at 105 rpm. Normal steam conditions are 600 lb/sq in at 900 deg F total temperature at the throttle valve, and a vacuum of 28½ in of mercury at the exhaust, with 75 deg F sea water.

Auxiliary electric power is provided by two turbo-generators exhausting to individual condensers. Each unit is designed to deliver at 675-kW, 450-volts 3-phase 60-cycles alternating current.

ELECTRIC WELDING OF COCHRAN BOILERS

THE well-known firm of Cochran & Co, Annan, Ltd, Dumfriesshire, who have for many years been makers of riveted boilers, have now changed their fabrication methods and are using British Oxygen equipment for plate preparation for automatic electric welding. Full-scale production of all-welded boilers and pressure vessels is now in progress, and savings of 40 per cent in time and labour are being made compared with mechanical methods of preparing the plates. For plate preparation an Oxyplane machine, the first of its type to be used by boilermakers, is used. The Oxyplane, with propane as fuel gas, gives a double-bevel and nose preparation to plates up to 40ft long, 10ft wide and 2in thick. In the new pressure vessel shop, plates, after being rolled, are welded with a B.O.C. ram-type automatic welding boom, the latest equipment in its field. The boom has a welding length of 17ft and a vertical lift of 16ft. At the base a fixed roller-bed rotates the boiler as it is welded. The machine uses the Union-melt submerged-arc welding process.

THE OEEC has published the first report on hydrological and biological conditions at the European testing stations participating in the work of the group of experts studying the problems of biological fouling and corrosion of ships' hulls. The publication contains a short description of each of the stations, their methods of work, and pictures to demonstrate the practical arrangements which have been employed to obtain comparable data. Information is given on the rafts in use, the hydrological conditions of the water and the nature of the fouling encountered. Copies, which are available free of charge to interested persons, can be obtained from the Organisation for European Economic Cooperation, 2 rue André-Pascal, Paris 16.



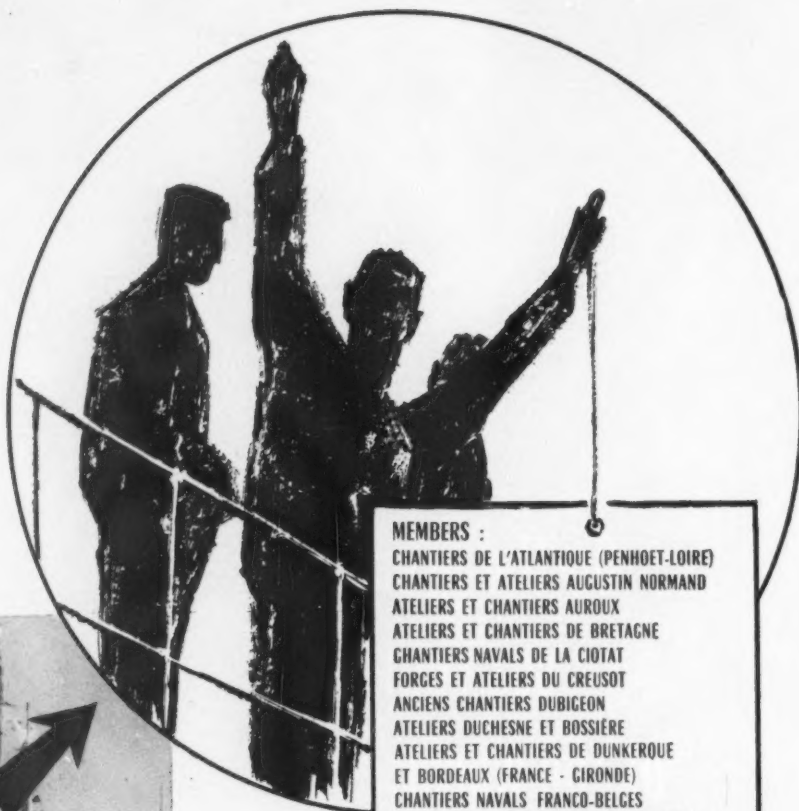
View looking down into the specially constructed container hold, showing a container about to be lowered into position

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Vickers Hovercraft

RESEARCH AND DEVELOPMENT BY VICKERS-ARMSTRONGS

A NEW transport concept has been evolved and Vickers-Armstrongs (South Marston) Ltd, in conjunction with Hovercraft Development Ltd, are in the process of projecting, designing and constructing several sizes of Hovercraft. The basic design of the first generation of these vehicles comprises a primary structure in the form of a stiff platform, taking the distributed pressure of the air cushion on the bottom surface. Fans, lift-engine, and distribution ducts for the peripheral jet are mounted on this platform, with the remaining area providing accommodation for passenger cabins and/or cargo holds. Controls are provided to stabilise the craft in heave, pitch and roll, and to counteract the effects of side loads and yawing movements. Model tests have been made, over water, ground and in the wind tunnel, to determine the aerodynamic behaviour and ground interference effects. To follow up these tests a research Hovercraft VA-1 was built.

The design principles outlined above were incorporated in the research vehicle VA-1, which was fitted with bare essentials only for the first overland tests. In this condition it first became operational in 1960 at a weight of 3,300 lb and a hover height of 4.5in.

It has been operated continuously since that time, with various modifications including several different lift curtain systems. Stability devices, such as compartmentation of the cushion and associated controls, have also been developed. Various fairings and a cabin have now been added as protection for over-water trials. These modifications increase the weight to 3,500 lb and the hover height is now 4.1in.

It is recognised, at this state in Hovercraft development, that practical demonstration, particularly overseas, is essential with such a new type of vehicle. The difficulties attendant on transporting a large Hovercraft to distant trials areas have prompted the company to build a vehicle small enough to be transported by air to demonstration sites, and sufficiently developed to prove the engineering design and the practicability of application.

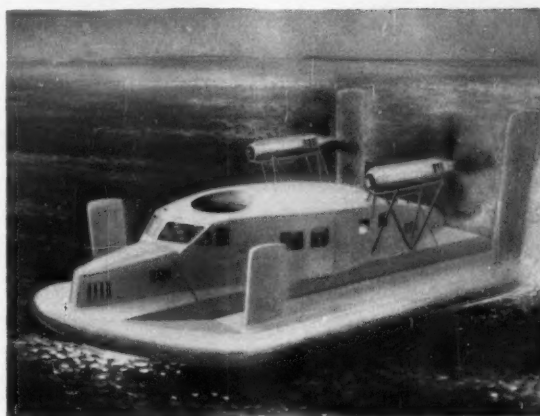
VA-2

The company is therefore building the small craft designated VA-2. This is a utility vehicle, carrying four or five people, with a speed of 40 knots and an endurance of 1½ hours. In addition to demonstrations in remote parts of the world and route assessments for prospective Hovercraft operators, the craft has immediate applications as a fast executive transport over sheltered and inland waters, and for the transport of personnel and equipment over difficult terrain where existing types of vehicles cannot operate.

To provide the required width for loading into current British transport aircraft, three sections on either side of the main structure are made readily detachable. To provide height clearance for loading, the two fin and rudder assemblies and complete propulsion unit with support struts, are made as detachable units. These units permit rapid reassembly, with a minimum of adjustments, to make the craft operational on remote demonstration sites.

The vehicle is powered by three light-aircraft piston engines, two for lift and one for propulsion, and the hover height over a solid surface is 8.5in. Overall dimensions of the assembled craft are:

Length 28ft 4in
Breadth 14ft 10in
Height 10ft 4in



An artist's impression of the VA-3

The next craft VA-3 is already under construction. This is a 10-ton vehicle and at this size a useful load can be carried. In the role of fast passenger ferry or personnel transport it can operate in river estuaries and similar terrain where its amphibious capabilities allow it to operate over water with waves up to 2ft, and over shoals and mudbanks. In this role the cabin is fitted to accommodate 24 passengers and crew. For survey, exploration or patrol, the craft can be fitted with a cargo space and could then carry some 4,000 lb of equipment plus crew for 80 nautical miles at high speed.

The structural designs follows the same principles as already outlined, and a similar lift system is employed. Four Blackburn Turbo-turbine engines are specified for the lift fans and propulsion drives, but the design is sufficiently flexible to permit the use of alternative power units.

For the propulsion system, two reversible variable-pitch four-bladed propellers are used. The pitch change provides reverse thrust, which is used for braking the craft and to aid manoeuvrability.

In addition to the directional control provided by the propulsion system, cable-operated control surfaces on the port and starboard coamings provide effective "keel" area to prevent drift and to assist in turning. The overall dimensions of the assembled craft are:

Length 52ft 6in
Breadth 25ft 0in
Height 17ft 9in

Future Projects

A great deal of advanced scheming has been done at South Marston on Hovercraft of the deep sea-going type. For the type of seas likely to be encountered on unprotected waters Hovercraft sizes from 100 to 1,000 tons should be considered. Such sizes are dictated by two factors.

First, for open water operation all through the year, the wave conditions require larger craft with greater hover height. This is to keep the structural loads and power requirements to reasonable values. The second factor, which derives from the relationship of cushion area to perimeter, leads to improved economy of operation, in terms of ton-miles per horsepower installed. This is due to the relative saving in power and the greater disposable

load in the larger craft. Thus the larger ranges required for open sea journeys become economic in terms of fuel to payload ratio.

For operation closer to the surface, both overland and over waves, the development of flexible structures is receiving attention. The structure of a Hovercraft is largely dictated by the impact loads. In the first designs, adequate clearance was provided by having higher powered lift systems, since the structural penalties in designing for greater impact are prohibitive. By introducing flexible skirts the major design limitations are overcome. Local impacts and abrasion are not borne by the main structures, but by the flexible components. These can be designed to accept high accelerations, and thus the accelerations and loads transferred to the main structure can be greatly reduced.

The projected developments described are a long way off in terms of engineering. Although flexibility in its simplest form is already being tried in the form of rubber sidewalls or skirts, the ultimate servo-actuated mechanical device may take 10 years. A similar time scale is likely for the large seagoing craft, and with its great capacity for work its application to progressively widening markets is foreseen. However, an economic size short-haul passenger car ferry is considered much nearer attainment and Vickers are working on a number of such projects.

Large Ferry Craft VA-4

An early scheme for a craft of about 100 tons has been projected as type VA-4. This craft, with a hover height of up to 3ft and capable of speeds between 70 and 80 knots, can be an economic proposition. The dimensions of type VA-4 are:

Length	173ft
Beam	58ft
Equipped weight	61 tons
Fuel and payload	49 tons

A number of features may be changed for particular requirements, but at the moment the craft is designed to operate a frequent high-speed service to offshore islands in more sheltered seas and channels. To improve manoeuvrability in restricted waterways the propulsion engines are mounted amidships and given mechanical means of deflecting thrust. The bows and sidewalls and the configuration of air cushion are suited to the expected waves, floating debris or solid obstacles likely to be encountered. Emphasis on ferrying cars or other cargo and speed of turnaround will govern the design of doors and hatches. Side versus end loading for the hold is another operational feature to be evaluated.

The Future of Hovercraft

The essential concept will be exploited; that of a truly amphibious vehicle with a high over-water speed. Shore installations will be kept to a minimum for on-and-off loading. While navigational aids will be essential these may be integrated with existing radio/radar facilities provided in busy waterways for conventional craft.

In parallel with the engineering developments described, it will be essential for what may be termed political developments to keep pace. The transport licensing departments and port authorities must agree on requirements which will ensure the safety of passengers and crew and regulate traffic between various users of waterways, without penalising the new capabilities of this class of vehicle. One must avoid the "man with a warning flag" type of restriction which has accompanied the introduction of new forms of transport in the past. Air traffic and the growing volume of motorists already have forced more realistic customs procedures in international travel. To realise the

potential of Hovercraft transport, these precedents must be followed.

The engineering problems are thus being solved and, if free of artificial restrictions, the Hovercraft may have a great impact in the next 5 to 10 years, first, in meeting the growing demands of the tourist market, and then by adding a stimulus to international travel and trade.

BOOK REVIEWS

Wyt's Digest of Dutch Shipping and Shipbuilding 1961. (Publishers Wyt-Rotterdam; exported by Meulenhoff & Co. Amsterdam. Price Fl. 25.)

Over the last seven years a most valuable record of the maritime industries in the Netherlands has been built up by this publication. Roughly half the contents comprises record material—for instance, details and illustrations of ships and small craft built during the year, a merchant fleet list with names of owners and other details, and particulars of liner services with their ports of call—and the other half, review material, covering the state of different branches of the industries during the year, liner, tramp, tanker, coastal and river shipping, shipbuilding, freight markets, insurance, port activities and so on. These articles, well illustrated, are written by experts in the different fields. It is as complete a record of a national maritime scene as may be found anywhere in the world. Published in English, the book is attractively presented.

Port of London Guide. (Wheatland Journals Ltd, 157 Hagden Lane, Watford, Herts. Price 25s.)

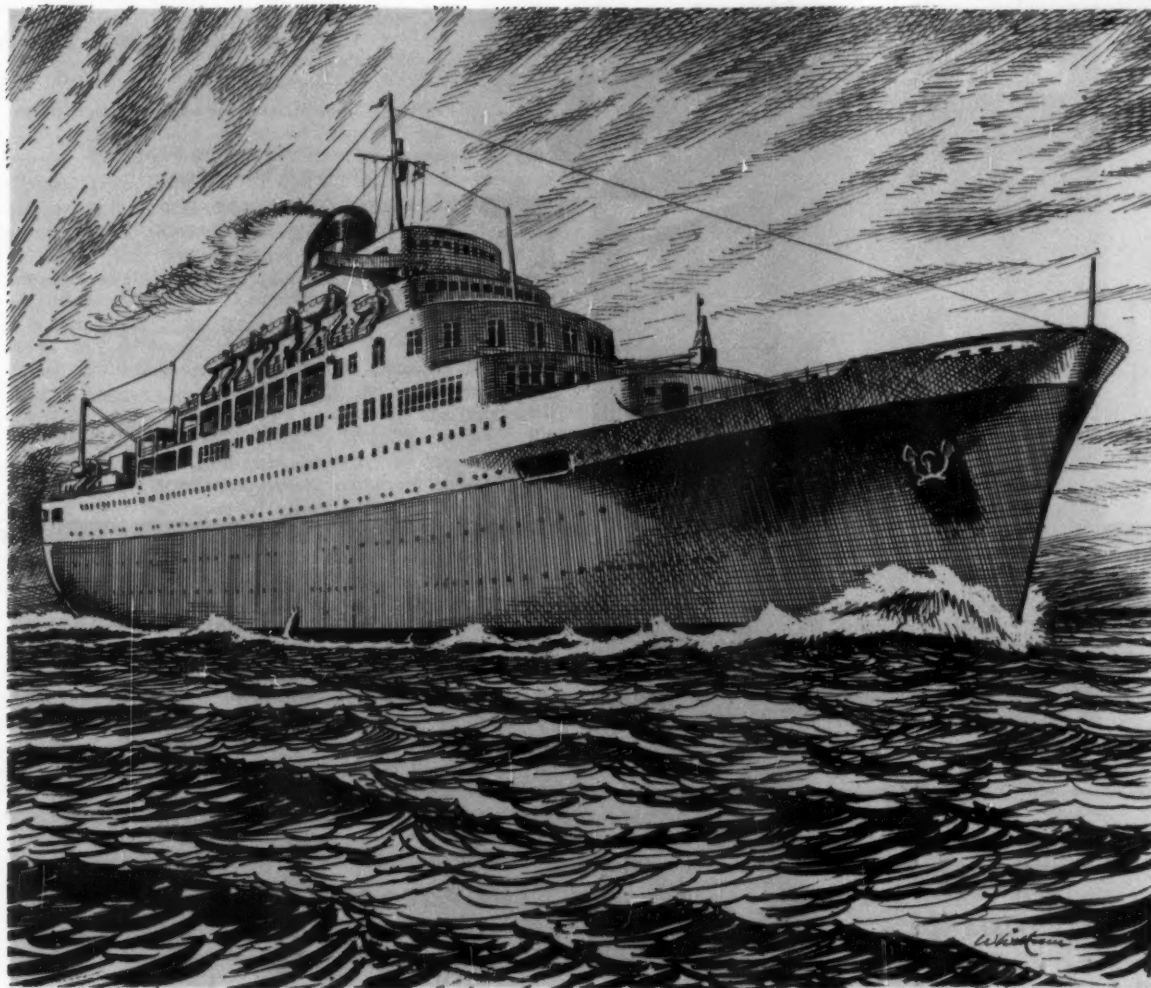
This guide has appeared every other year for the last decade and now has an established place of useful reference to a variety of firms and individuals intimately connected with the trade of Britain's premier port. The new edition has been revised in association with Mr H. Allen, formerly principal assistant to the general manager of the Port of London Authority. Every aspect of the working and function of the port seems to be covered in the general descriptive material which forms the first half of the guide, while the remainder comprises tabular and directory matter widely useful and easily found. All wharves, private and public, are listed and their location pinpointed on maps showing road approaches. Maps of the dock systems are another useful feature.

GLASS FIBRE SHEATHING

Miles Marine & Structural Plastics Ltd, of Ford, Arundel, Sussex, part of the Miles group of companies, have completed negotiations with Camper & Nicholsons Ltd to operate their patented process for the glass reinforced plastic sheathing of wooden boat hulls. This process has been used with considerable success in providing a perfectly smooth hull surface, as well as giving protection from attack by borer worm, water soakage, and the prevention of corrosion on a variety of craft including *Brave* class patrol boats and harbour launches, *Monaco* class motor cruisers and racing craft.

Miles experience in laminating glass reinforced plastic sheeting during the last ten years will now be used for the Camper & Nicholsons patented method, which ensures a control over the degree of cure of the laminate. Sheets are kept in cold storage until they are required for application to the hulls by the yard concerned. Technicians are available to instruct shipyard personnel to apply the sheathing—a simple process which has none of the attendant risks evident with other forms of protective coverings.

Sanders & Forster Ltd, manufacturers of standard steel buildings and the structural engineering company of the Chamberlain group of companies, have erected one of their large tied-portal type standard steel buildings at Preston Docks on behalf of Anglo-Continental Services Ltd. Intended to help accommodate this "door to door" container service operating between the United Kingdom and Northern Ireland, this has a clear span of 100ft, a length of 280ft and eaves height of 35ft, and will be used as a dockside warehouse and transit shed for the assembling and distribution of multiple container loads.



The Conquest of the Sea continues

The stone-age sailor who shaped the stem of his dugout to out-paddle astonished contemporaries; the ship-wright who 'fire-proofed' the galleys of classical Greece with vinegar-soaked fabric; the engineer who developed the expansion engine—every man who ever improved a ship since the dawn of history must have thought the conquest of the sea to be in sight. Yet new techniques and materials continue to change the design and performance of ships. Light, incombustible Marinite,

for instance, has given modern ship design new scope. Used in ships' accommodation structures, and for simultaneous sheathing and fire protection of aluminium or steel superstructures, Marinite has great versatility in decoration.

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Fresh Water Distiller

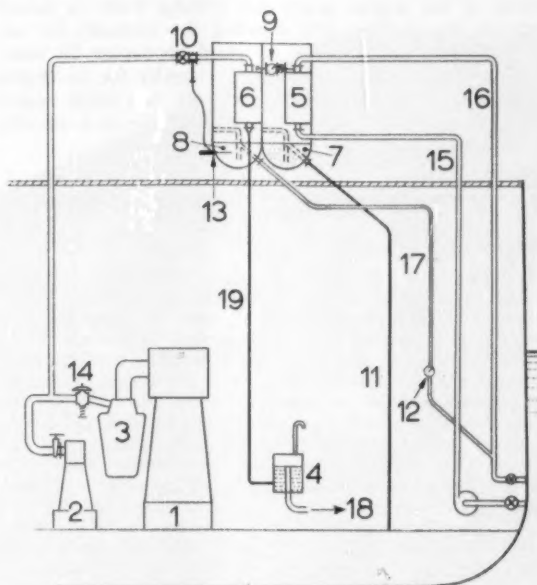
HEAT RECOVERY UNIT IN THE "STANLEY ANGWIN"

THE endurance and operating range of the cable ship *Stanley Angwin*, owned by Cable & Wireless Ltd, has recently been increased by the installation on the boat deck of a new heat recovery type of sea water distiller, developed and designed by a marine engineer, Mr G. W. Kitching. The whole plant is a completely packaged unit, 7ft 8in high with a base area of 6ft by 6ft and weighs about 2 tons. Due to the glass fibre construction it is smart in appearance and entirely suitable for installation on the boat deck.

The distiller uses a completely new principle of evaporation, and operates at atmospheric pressure. Sea water is circulated from a sump and passed over the tubes of a heat exchanger supplied with exhaust steam from the ship's generators, afterwards returning to the sump for recirculation. Distilled water is circulated in a similar manner over the tubes of another heat exchanger supplied with cooling water. Air is circulated by a fan in a closed circuit to mix with the heated brine passing over the heater tubes, so that it is fully humidified and leaves at an elevated temperature. Due to a rapid reversal in the direction of the air flow, all liquid is separated out of the air. The air is then passed to the cooler, where it is mixed with the cool distilled water flowing over the tubes and is cooled below its entering dewpoint temperature, so that some of the water vapour in the air is condensed out and mixes with the circulating distilled water. The cooled air is then returned to the fan and the cycle is repeated.

Sea water feed is supplied to the heater section at about twice the rate of distillation, so that about one half is evaporated and the remaining quantity causes brine to overflow from the sump to pass overboard. Condensation of water vapour in the cooler causes a continuous overflow of distilled water from the cooler sump, and this is passed to the storage tanks.

Because evaporation occurs from the surface of the



Diagrammatic arrangement of distilling plant in the "Stanley Angwin"

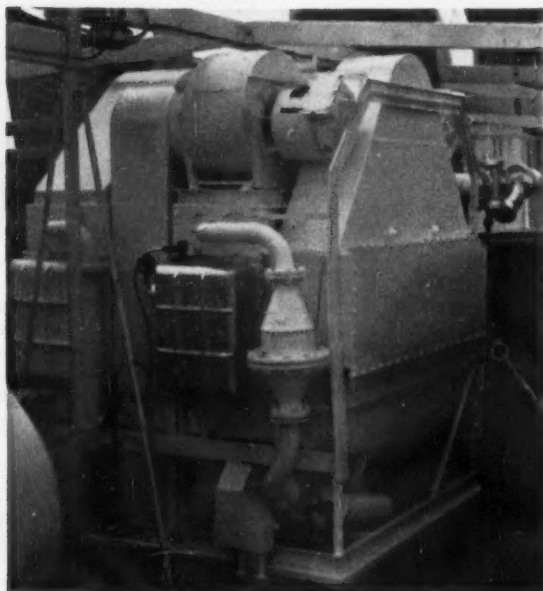
- | KEY | |
|---------------------------|-------------------------------|
| 1 Main engine | 11 Dist. water to tanks |
| 2 Steam generator | 12 Brine flow indicator |
| 3 Main condenser | 13 Temp. regulator thermostat |
| 4 Deaerating tank | 14 Surplus steam valve |
| 5 Cooler | 15 Cooling water supply |
| 6 Heater | 16 Cooling water discharge |
| 7 Dist. water sump | 17 Brine discharge overboard |
| 8 Brine sump | 18 To feed float tank |
| 9 Feed flow indicator | 19 Condensate drain |
| 10 Spirex temp. regulator | |

brine at a temperature well below its boiling point, ebullition does not occur on the heating surfaces and scale formation is avoided. The rapid flow of the brine over the heating surfaces and the intimate mixing with the air ensures extremely good heat transfer characteristics. Float valves or other controls are not used and the plant is completely self-adjusting and stable in operation. It requires no attention when in use and is therefore suitable for installation remote from the engine room.

The equipment installed in the *Stanley Angwin* produces 8,000 gallons/day and is supplied with exhaust steam from the generators, the excess exhaust flowing to the condensers. The distiller acts as an evaporative condenser condensing at 10in vacuum (about 10 lb/sq in absolute). The condensate is returned by gravity to the deaerating tank and the feed system. Pure distilled water is used for boiler feed, and the water for domestic purposes is automatically chlorinated as it is drawn from the distilled water tanks. The domestic water is passed through dechlorinator and hardener as it is used, so that unlimited supplies of pure good-tasting water are available. The ship is now completely independent of shore water supplies when at sea, and good quality fresh water at low cost is ensured.

The arrangement in the *Stanley Angwin* is shown diagrammatically in the accompanying drawing. For diesel-engined ships the distiller may be used with live steam produced by waste heat boilers, or alternatively with jacket water as the heating medium.

The capacity of a similar plant to that installed in the



Fresh water distilling plant on the boat deck of the cable ship "Stanley Angwin"

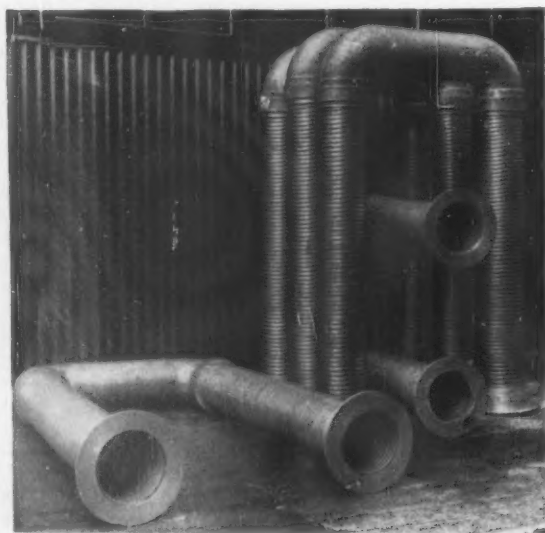
Stanley Angwin is 10 tons/day when operated on diesel engine jacket water at 130 deg F, rising to 25 tons/day at 170 deg F. Due to the very low resistance of the heat exchangers the plant is installed in series with the main engine cooler on diesel ships, and when in use the whole of the engine jacket and cooling water is passed through the distiller, thus avoiding the necessity for adjustment of bypass valves. A plant producing 20 tons/day may be used as an evaporative cooler for an engine output of 1,200 bhp, and where only one main engine cooler is fitted the plant is suitable for use as a standby cooler.

RECENT TECHNICAL DEVELOPMENTS

Flexible Aluminium Tubing

The manufacture of flexible tubing in aluminium alloy is a recent development of the United Flexible Metallic Tubing Co Ltd. Hitherto, production of this type of tubing has been confined to galvanised steel, stainless steel and bronze. Many industries, however, face problems of handling particles, gases or fluids through flexible tubing where the special advantages of aluminium prove of particular value. For this product, aluminium strip is rolled and slit to fine tolerances and is then helically formed, by means of its interlocking edges, into tubing. A continuous sealing cord is introduced between the interlocking edges to maintain pressure tightness with flexibility. The choice of a high strength alloy, Noral 54S (BS 1470 NSS) offers a tube suitable for pressure service at about one third the weight of similar tubing in other metals. Working pressures range from 300 lb/sq in for ¾-in bore tubing to 75 lb/sq in for 12-in bore tubing. The aluminium alloys, particularly the aluminium-magnesium type of which Noral 54S is in the higher strength range, are specially useful to industries handling or processing liquefied gases or other materials at very low temperatures, at which many other metals suffer embrittlement.

In many conditions of service, flexible tubing must withstand corrosive gases or liquids. Aluminium's resistance to corrosion makes it suitable for use in many otherwise highly corrosive situations. As an example, United Flexible Metallic Tubing Company's new catalogue illustrates 8-in bore flexible tubing assemblies made from Noral 54SO strip and used by Shell Tankers for flushing tanker pipelines and tanks with sea water. For the development of this new product, Alcan Industries Ltd (formerly Northern Aluminium Co Ltd) supplied all experimental material and technical advice on forming and fabrication techniques.



Flexible aluminium alloy 8-in bore flexible tubing assemblies



Diesel Tug "Serviceman"

Conversion from Steam Propulsion

THE SIZE of merchant vessels handled by the United Towing Co Ltd, Hull, has increased to such an extent that the owners decided to increase the power of their ocean-going fleet. The first conversion has been carried out on the *Serviceman* by fitting her with a diesel engine of 2,000 ihp. The *Welshman*, also owned by the United Towing Co Ltd, has machinery of 4,000 ihp. Others of the company's fleet of 35 tugs will be brought up to 2,000 ihp. During trials in the river Humber in adverse weather conditions a speed of 13½ knots was attained by the *Serviceman*: her towing endurance has been increased from 30 days to 60 days.

The *Serviceman*, an Empire class tug, was built by Cochrane & Sons Ltd, Selby, in 1945 and was powered by Nordberg type machinery, and later by 800-ihp Alexander Hall steam reciprocating machinery. In 1960 she was handed over to the Drypool Engineering & Dry Dock Co Ltd, Hull, who removed all the steam machinery, boilers, engine seatings and most of the bunker tanks, auxiliary pipelines and electrical installation. After a Lloyd's Register special survey new bunker tanks, engine seatings etc, were built into the hull to suit the diesel machinery, a new funnel was fitted and the accommodation refitted.

Delivery of the British Polar MN16S Nohab engine was taken in March this year. The existing stern tube was rebored to accommodate the new tailshaft, which was of a greater diameter due to the increase in power. The bronze propeller was specially designed by the Manganese Bronze & Brass Co Ltd, Liverpool. A self-rendering towing winch of 30 hp has been supplied by Gemmell & Frow Ltd, Hull, and is fitted with 275 fathoms of 5in wire. Due to the increased pulling power it was necessary to fit new towing hooks.

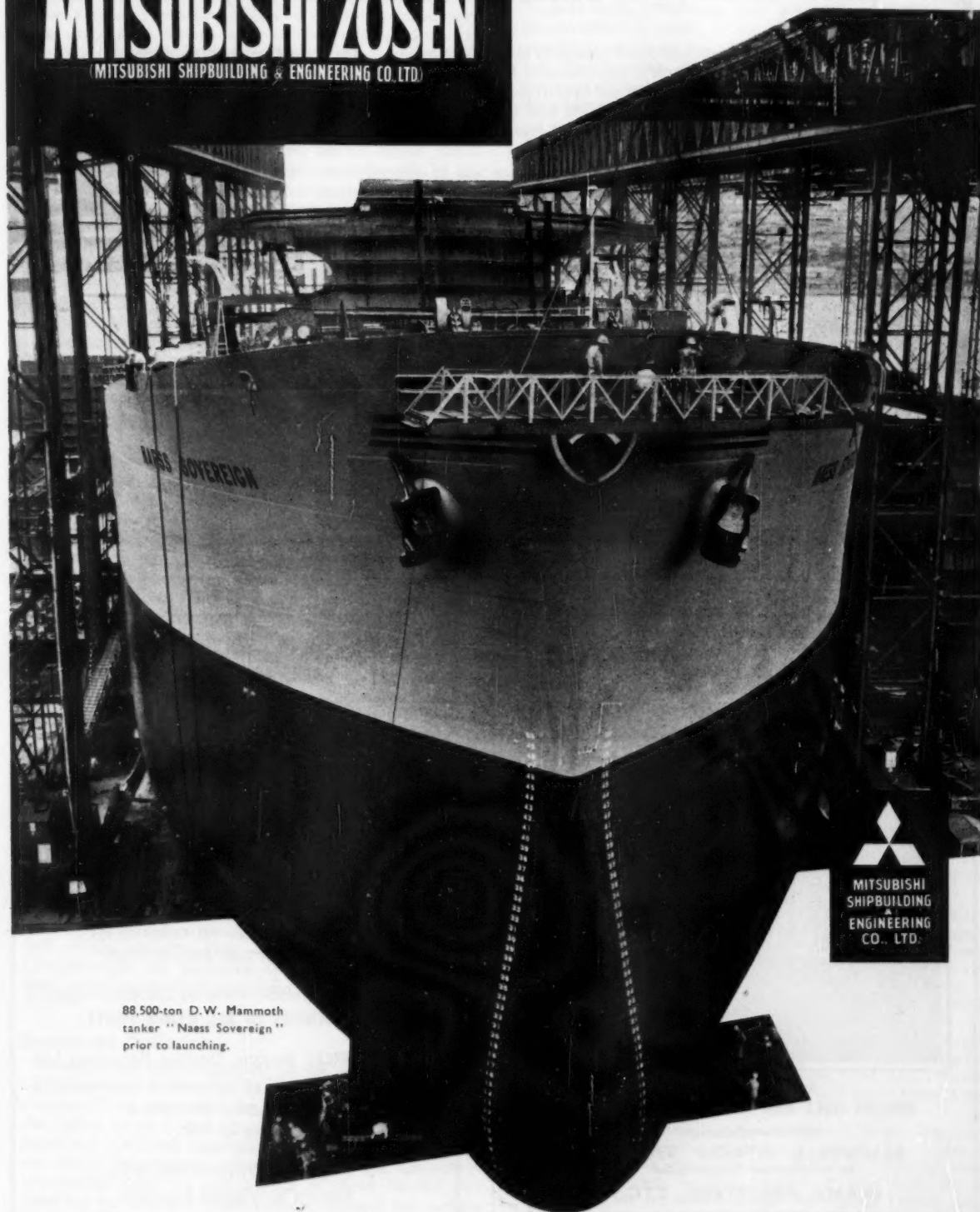
A complete new electrical installation and switchboard were supplied and fitted by McCollin Bros, Hull, the voltage having been altered from 110 to 220 volts. Fluorescent lighting has been provided throughout the accommodation. The conversion and alteration of all steel work and the installation of all machinery was carried out by The Drypool Engineering & Dry Dock Co Ltd, Hull.

A new range of drilled, semi-tubular rivets is now being produced by Cooper & Turner Limited, of Vulcan Road, Sheffield 9. These rivets are being produced in mild steel, copper, brass and aluminium alloys to British Standard specifications and particularly to special order as, for example, where special head shapes and sizes are required. The size range is from ¼in to ¾in diameter and up to 6½in in length.

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Oil Topics

TANKER TIMECHARTERS

DISCUSSING the tanker market in August, Davies & Newman Ltd noted further interesting developments. A major London company which had previously taken very large tonnage for periods up to 20 years, concluded the fixture of a further 53,000 tons tanker for twenty years timecharter. Early in the month two other London major companies entered the timecharter market, one seeking tonnage in the 18/20,000 tons and 30/45,000 tons group, for five years from end 1963/1964, and the other asking for offers of vessels of 40/50,000 tons for up to twelve years with similar delivery. The single voyage black oil market was slightly more active, Persian Gulf rates remaining steady, while some improvement was noted in rates paid for Caribbean loaders. The clean trans-Atlantic rate remained steady during the month at scale minus 37½ per cent, and generally speaking the demand for clean tonnage was on a level with that during the preceding month. In addition to the timecharter fixtures referred to above, Brazilian principals chartered or continued some eight vessels ranging in size from 15,600 dwt to about 32,000 dwt, all for periods of one year, black oil trading. The laid-up total at September 1 shows a further decrease of 31 ships and about 548,000 dwt to a present total of 204 vessels of about 3,430,000 dwt.

New Construction and the Tanker Outlook

WHILE THERE REMAINS a substantial tonnage of tankers laid up—about half the peak of 8 mn dwt in 1959, but still a sizeable figure—the outlook for tankers will continue to be shadowed by the cloud of newbuilding. According to John I. Jacobs & Co's half-yearly world tanker review, deliveries of new tankers are now running, and will continue to run for at least another 18 months, at a rate of over 5 mn dwt per annum, while scrapings and conversions are at present well under half this figure. The total tanker order book at the end of June is estimated to be little short of 11.5 mn tons, of which about 3 mn tons represents new contracts during the past six months. Well over half this newly ordered tonnage is attributed to tramp ownership. "Altogether a very formidable addition", says the report, "the wisdom of which before the market has had a chance to stage anything approaching a real recovery is highly questionable." The outstanding feature of the new tramp contracts is the overwhelming proportion for Norwegian account and the fact that Greek owners, who in recent years have often been the first to seize favourable opportunities, are still taking no part in this latest spate of contracting. Of the total newbuildings the highest proportion, 3,940,000 dwt, is for British account, amounting to nearly 39 per cent of the existing fleet. Japanese newbuildings total 1,115,000 tons, no less than 48 per cent of the present fleet, a reflection of Government policy and encouragement.

Restrained Optimism

DESPITE the discouragement of the newbuilding situation and other features of the past six months, the conclusion of this comprehensive and always useful study of the tanker scene is that there is reason for "a degree of restrained optimism regarding market prospects", based on certain encouraging pointers. One is the absorption into service since the end of June of about 500,000 dwt from lay up at a time when reduced demand for tankers might normally be expected. Another is the fact that post-war tonnage laid up, which may be assumed can move at short notice without considerable cost and therefore

constitutes a first line of reserve, amounts to 1.7 mn tons, about equivalent to that which resumed trading last winter. Thus, while last year there was what might be called a second immediate reserve of 1 mn tons which helped to influence rates, if the market follows a similar pattern this year, this secondary reserve will be negligible. Tankers in the grain trade may be kept there by the recent improvement in rates, so the marginal threat from that quarter is not regarded as serious. Again, there is much less slow-running or deliberately long-routeing by oil company-owned tankers that there was a year ago, which corresponds to the removal of another reserve.

Long-Term Outlook

THESE CONSIDERATIONS relate to the short-term outlook "which at the moment is perhaps more hopeful than the longer term". Oil production in the large exporting areas which are the main source of oil movements by sea, is up. On the other hand, a disappointing feature on the consumption side is that U.S. demand fell by about 1 per cent in the first half of this year. While mainly of domestic significance at the moment, the consequent build up of stocks might lead to further restrictions on imports. It is worth noting, incidentally, that according to figures issued by the Petroleum Information Bureau at the same time as this review, U.K. consumption during the first six months of the year went up by 9.2 per cent, reaching a figure of over 23 mn tons. In conclusion the review emphasises the need for caution in contracting for new tonnage "and if there is anything which will make owners hesitate it must surely be the evidence of the rates currently being accepted for period business ahead".

RECENT SHIP SALES

PASSENGER LINER *Conte Grande* (ex-Monticello, ex-Conte Grande, 23,842 grt, built 1928 by Stablimento Tecnico, Trieste) sold by Soc. Marittima Nazionale, Genoa, to La Spezia shipbreakers.

Cargo steamer *Lekkerkerk* (ex-Bredero, ex-S. Hall Young, 10,542 dwt, 7,217 grt, 4,467 nrt, built 1943 by Permanente Metals, Shipyard No 2) sold by N.V. Vereenigde Nederlandsche Scheepvaart Mij, The Hague, to London Greek buyers for £128,000 with delivery Europe.

Motor vessel *Longfellow* (5,620 dwt, 3,948 grt, 2,322 nrt, built 1953 by Henry Robb Ltd) sold by Chine Shipping Co Ltd, London, to Wm. France, Fenwick & Co Ltd, London, for about £280,000 with mid-September delivery Tyne.

Steam tanker *Stanvac Calcutta* (16,543 dwt, 9,933 grt, 5,912 nrt, built 1944 by Bethlehem-Sparrow's Point Shipyard) sold by Petroleum Shipping Co Ltd, to Formosan buyers for about \$370,000 with delivery Far East, apparently for conversion.

Motor ore carrier *Sirefjell* (ex-Picardie, ex-Kollgrim, 8,589 grt, 4,811 nrt, built 1936 by Eriksbergs M.V., new forepart 1949, converted from tanker 1956, new engines 1950) sold by A/S Falkefjell (Olsen & Ugelstad), Oslo, to Traditional Traders Shipping Ltd, Bermuda, for £250,000 including a charter to B.I.S.C. (Ore) Ltd, and resold to Japanese shipbreakers for £99,000.

Cargo steamer *Jamsons* (ex-Sucrose, ex-Cobargo, 860 grt, 352 nrt, built and engined 1929 by the Ailsa Shipbuilding Co Ltd) sold by Jamsons Shipping Co (Hong Kong) Ltd, Panama, to Hong Kong shipbreakers, having been lying at Hong Kong since May 4.

Five more BP tankers have been sold to Bisco. They are the *British Baron* (8,556 grt, 4,922 nrt, built 1947 by Cammell Laird & Co Ltd); *British Marquis* (8,562 grt, 4,821 nrt, built and engined 1946 by Wm. Doxford & Sons Ltd); *British Marshal* (8,582 grt, 4,845 nrt, built and engined 1946 by Wm. Doxford & Sons Ltd.); *British Success* (8,222 grt, 4,834 nrt, built 1946 by Blythwood Shipbuilding Co Ltd); and *British Supremacy* (8,247 grt, 4,749 nrt, built and engined 1945 by Harland & Wolff Ltd, Belfast).

NEW CONTRACTS

Shipowners	No. of Ships	Type	Tons d.w. (gross)	Dimensions (ft.) L.b.p.(o.a.) x B x D.(dft.)	Delivery	Speed (knots)	Propelling Machinery	Total h.p.	Engine Builders	Shipbuilders
Overseas Yards										
Rederi A/B Göteborg-Frederikshavn Linjen	1	Pass car ferry	—	298.58 x 51	1963	18	Diesel	—	—	Aalborg Vaerft A/S
Hugo Stinnes Transocean-Schiff.	(408)	Cargo	4,100	331.42 x 47.25	1962	—	Diesel	—	—	Atlas Werke
Brostrom Group	1	Tanker	52,500	—	1963	16.5	G.V. diesel	21,600	Shipbuilders	Nederlandsche Dok
Atlantic Refining Co	1	Tanker	32,240	—	—	—	Geared turbine	—	—	Newport News
Stavros Livanos	5	Cargo	23,000	—	—	—	—	—	—	Brodogradiliste "Uljanik"
Somerfin (Israel)	1	Pass. ferry	—	—	1963	21	—	—	—	A Belgian shipyard
Citadel Shipping Co, Hong Kong	1	Cargo	14,884	—	1963	—	Diesel	—	—	Hitachi S.B. & E. Co, Sakurajima

LAUNCHES

Date	Shipowners	Ship's Name and/or Yard No.	Type	Tons d.w. (gross)	Dimensions (ft.) L.b.p.(o.a.) x B x D.(dft.)	Speed (knots)	Propelling Machinery	Total h.p.	Engine Builders	Shipbuilders
Yards in Great Britain and Northern Ireland										
July 27	Admiralty	Alsation (779)	Tug	(170)	85(94) x 24.25 x 12	10	Tw.-scr. diesel	1,320	Lister Blackstone	Richard Dunston
Aug. —	Govt. of Ceylon	—	Hopper barge	(100)	—	—	Diesel	—	—	Millen Bros, Paisley
Aug. 28	Corporation of Trinity House	Preceder (284)	Pilot tender	(300)	(139) x 24 x (10.42)	12.75	Tw.-scr. diesel	990	Lister Blackstone	Brooke Marine
Aug. 28	Ross Group, Grimsby	Ross Renown	Trawler	(850)	185 x 33 x 17.25	—	Twin 6-cyl diesels	1,500	Ruston & Hornsby	Cochrane & Sons
Aug. 28	Deeale Trawling Co	Deeale	Trawler	(48)	(74) x 19.5 x 10.5	—	Diesel	264	Lister Blackstone	John Lewis & Sons
Aug. 29	Consolidated Fisheries, Grimsby	Carlisle (528)	Trawler	(430)	137.25 x 28 x 14.25	—	Diesel	1,120	Mirrlees Bickerton & Day	Goole S.B. Co
Overseas Yards										
July 17	Polish Ocean Lines	Domeyko (151601)	Refrig. cargo	8,600 (5,406)	—	—	Sulzer diesel	—	H. Cegielski	Stocznia Szczecinska
July 29	Universe Tankships	Ore Venus (83)	Ore carrier	45,500 (16,900)	710 x 102 x 51.5(35)	14.75	Geared turbine	12,500	G.E.C.	National Bulk Carriers, Kurl
July 29	Oswego Ore Carriers	Oswego Defender (1003)	Ore/oil carrier	46,000 (30,500)	708.57 x 100.42 x 50.5(37.2)	17	Geared turbine	20,250	Shipbuilders	Kawasaki Dockyard
Aug. —	Iino Kaifu Kaisha	Mikeshima Maru	Cargo	12,050	—	18.2	Sulzer diesel	13,000	Shipbuilders	Iino S.B. Co
Aug. 12	Mitsui Samaku	Kinkasan Maru (662)	Cargo	9,500	—	19.2	B & W diesel	12,000	Shipbuilders	Mitsui S.B. & E. Co
Aug. 15	D/S af 1960	Janecke Maersk (772)	Bulk carrier	35,000 (23,400)	640(669.75) x 90 x 52(35)	16	B & W diesel	11,550	Mitsui S.B. & E. Co	Nippon Steel & Tube Co, Tsurumi
Aug. 22	Gulf Oil Corp	Gulf Supreme (4574)	Tanker	29,150	615(645) x 84 x 44(33)	17	Geared turbine	15,000	Shipbuilders	Bethlehem-Sparrows Point
Aug. 24	Kolner Reederei	Inge (332)	Bulk carrier	28,700 (19,900)	597(629.42) x 84.5 x (34)	15	6-cyl diesel	9,860	M.A.N.	Rhein Stahl Nordseewerke
Aug. 25	Sameiet Varangship I and A/S Malmfart	Varangsborg	Ore carrier	8,200	390 x 61 x 28.5(23.25)	14	G.V. diesel	4,500	Shipbuilders	Fredrikss ad M.V.
Aug. 26	Canadian Govt. (For West Indies Federation)	Federal Palm (29)	Pass. ferry	1,600 (3,200)	274.5(298) x 51.5 x 26.5(15.5)	14.5 (T)	Two diesels	3,740	Fairbanks Morse	Port Weller Dry Docks
Aug. 29	A/S Thor Dahl	Thorshall (188)	Tanker	42,000	(723.42) x 97 x 49.25 (35.9)	17.5	Steam turbine	19,250	Shipbuilders	Uddevalvarvet
Sept. 2	Maritime & Commercial Corp, Panama	Aubade (647)	Bulk carrier	24,200	552.9(592.5) x 73.5 x 47.95(33.33)	15.25	9-cyl M.A.N. diesel	8,150	Shipbuilders	Verolme United Shipyards

TRIAL TRIPS

Date	Shipowners	Ship's Name and/or Yard No.	Type	Tons d.w. (gross)	Dimensions (ft.) L.b.p.(o.a.) x B x D.(dft.)	Speed (knots)	Propelling Machinery	Total h.p.	Engine Builders	Shipbuilders
Yards in Great Britain and Northern Ireland										
Aug. —	British India S.N. Co	Bombala (1613)	Cargo	7,350 (6,745)	395(426.1) x 59 x 32.5(28.1)	16	6-cyl B & W diesel	6,700	Shipbuilders	Harland & Wolff, Govan
Aug. —	Richardson & Co, Napier, N.Z.	Pukeko (398)	Coaster	1,250 (960)	(230) x 38.2 x (13.33)	—	7-cyl diesel	—	British Polar	Jas. Lamont & Co
Aug. —	British Transport Commission	Camber Queen (1319)	Pass. veh. ferry	(293)	(166.25) x 30 x 11(6)	10.5	Two diesels	750	Crossley Bros.	Philip & Sons
Sept. —	Sverre Ditlev-Simonsen, Oslo	Virana (535)	Tanker	18,650 (11,700)	525(530) x 70 x (31.5)	13.5	6-cyl H & W/ B & W diesel	6,500	J. G. Kincaid	Short Bros.
Aug. —	Admiralty	Airedale (778)	Tug	(170)	85(94) x 24.25 x 12	10	Tw.-scr. diesel	1,320	Lister Blackstone	Richard Dunston
Aug. 21	Britania Tankers	Gulf Scot (507)	Tanker	40,200 (26,500)	680(714.67) x 95.25 x 48.5(36.42)	17	Geared turbine	19,000	Richardsons Westgarth	Furness S.B. Co
Overseas Yards										
July 24	Yamashita Kisen and Futaba Kaifu	Yamatomi Maru (3845)	Tanker	33,932 (21,200)	446 x 86 x 45(34)	17	B & W diesel	15,000	Shipbuilders	Hitachi S.B. & E. Co, Innoshima
Aug. —	Gulf Oil Co	Philippine Sea (979)	Tanker	39,015 (24,700)	672.5 x 92.5 x 48.58 (36.42)	17 (T)	Geared turbine	16,500	Shipbuilders	Kawasaki Dockyard
Aug. —	Osaka Shosen Kaisha	Norfolk Maru (922)	Cargo	10,000 (9,350)	475.75 x 63.7 x 41(30)	18.2	6-cyl Sulzer diesel	13,000	Shipbuilders	Mitsubishi H.I. Reorg.
Aug. —	Union Miniere et Maritime	Melusine (311)	Cargo	10,000 (8,250)	433.1 x 61 x 35.58 (23.5)	14.4	Doxford diesel	6,000	Shipbuilders	Ch. et At. de Provence
Aug. —	Villain & Fassio	Picci Fassio (1557)	Tanker	31,500 (20,500)	620.9 x 86 x 45.58 (35.2)	17	Geared turbine	15,780	Shipbuilders	Ansaldo S.A., La Spezia
Sept. 5	London & Overseas Freighters	London Independence (136)	Tanker	34,000 (22,000)	(698.33) x 88 x 47 (35.2)	17.25	Tw.-scr. 8-cyl G.V. diesel	15,000	Shipbuilders	Uddevalvarvet
Aug. 11	Denizcilik Bankasi T.A.O.	Gazi Osman Pasa (544)	Cargo	5,305	328 x 49.2 x 27.76	15.63 (T)	5-cyl Sulzer diesel	3,200	Uruga Dock	Mitsubishi S.B. & E. Co, Shimonoseki
Aug. 12	Maages Tankrederi A/S, Oslo	Songa (429)	Bulk carrier	23,000 (14,800)	529.95 x 71.9 x 48 (34.33)	16	8-cyl diesel	10,000	Gotaverken	Bergens M.V.
Aug. 15	N.V. Vereenigde Nederlandsche Scheep.	Steenkerk (804)	Cargo	12,000 (10,000)	480(528.25) x 69 x 39 (29.5)	18 (T)	9-cyl diesel	10,600	Gebr Stork	C. Van der Giessen & Zonen
Aug. 18	Socony Mobil Oil Co	*Mobil Meridian (4577)	Tanker	46,692 (27,900)	705(730.5) x 102 x 50(38)	16.5	Geared turbine	15,000	Shipbuilders	Bethlehem-Sparrows Point
Aug. 19	Tonen Tanker Co	Tonen Maru (655)	Tanker	48,000 (29,000)	712 x 100 x 50.9(37.5)	16.5	9-cyl B & W diesel	18,900	Shipbuilders	Mitsui S.B. & E. Co
Aug. 21	Rederi A/B Clipper	Scandia Clipper (481)	Bulk carrier	25,100 (16,596)	540(577.33) x 74.75 x 48.58(34.25)	15.5	8-cyl M.A.N. diesel	9,300	Shipbuilders	Kockums M.V.
Aug. 22	C. H. Sorenson & Sonner, Arendal	Ariel (200)	Bulk carrier	18,100 (11,000)	(554.2) x 70 x 41.25 (30.2)	15	8-cyl G.V. diesel	7,500	Shipbuilders	Uddevalvarvet
Aug. 25	Svenska Ostasiatiska	Nagasaki (507)	Cargo	10,800 (8,000)	475(520.5) x 67.5 x (27.5)	17.5	8-cyl G.V. diesel	10,000	Shipbuilders	Nederlandsche Dok

* Launched as Stanvac Meridian for Regal Tanker Co S.A., Panama

MARITIME NEWS IN BRIEF

MR F. D. STICKLAND, who is at present commercial director, will retire from Vickers-Armstrongs (Ship-builders) Ltd on 31 March 1962. Mr W. A. Till, at present commercial manager, Vickers-Armstrongs (Engineers) Ltd, Barrow Works, will succeed Mr Stickland, on the latter's retirement. Mr W. J. Scott will become deputy commercial manager, Vickers-Armstrongs (Engineers) Ltd, Barrow Works, on September 30 until he succeeds Mr Till as special director and commercial manager on 1 January 1962. The following appointments have been announced by Vickers-Armstrongs (Engineers) Ltd to take effect from October 1: Mr R. F. W. Key to be an additional member of the board and director of production engineering; Mr P. D. Scott Maxwell to be a special director and deputy general manager, Barrow Works; and Mr J. Hay to be a special director and works manager, Barrow Works.

THE following changes in the organisation of Cooke, Troughton & Simms Ltd will become effective at October 1: Mr P. D. Scott Maxwell, who, as mentioned above, has been appointed to a position with Vickers-Armstrongs (Engineers) Ltd, is to relinquish his appointment as managing director, but retains his seat on the board. He also relinquishes his appointments as chairman and director of C. Baker Instruments Ltd, director of Cooke, Troughton & Simms South Africa (Pty) Ltd, president and director of Cooke, Troughton & Simms Inc, and director of Casella (Electronics) Ltd. Mr H. Wright is appointed managing director and becomes chairman of C. Baker Instruments Ltd, director of Cooke, Troughton & Simms South Africa (Pty) Ltd, and president of Cooke, Troughton & Simms Inc. Mr A. J. Munro is appointed engineering director and will be responsible for the technical departments in addition to production. He is also appointed a director of Cooke, Troughton & Simms Inc. Mr E. E. Kennaird is appointed a director of Casella (Electronics) Ltd. Mr E. Cussans is appointed works manager of Cooke, Troughton & Simms Ltd, and Mr S. S. L. Marshall becomes commercial manager of Cooke, Troughton & Simms Ltd in addition to his existing appointment as secretary.

MR G. H. WALTON, a director of British Insulated Callender's Construction Co Ltd, and of Painter Bros Ltd, both members of the BICC Group, has retired after having served with the group and its predecessors for more than 47 years.

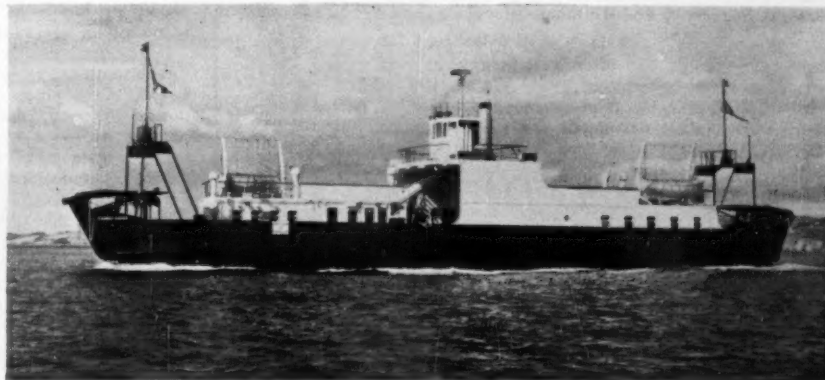
MR G. J. BRYANT, editor of *Lloyd's List*, has retired. Mr Bryant is succeeded by Mr J. D. Prince.

THE DEATH has occurred of Mr G. F. Walker, who represented the Amsterdam Dry Dock Company for over 30 years as their principal agent in Great Britain and remained a director of the same company's subsidiary in London until 1958.

CAPTAIN ERNEST (TIM) BOND, of Hull, has died on board the tug *Welshman*. He had been with the United Towing Company Ltd, Hull, for about 41 years and was one of the leading tugmasters in the country.

LATEST ISLE OF WIGHT FERRY

The British Railways passenger and car ferry "Camber Queen" has joined her sister ship "Fishbourne" on the ferry service between Portsmouth and the Isle of Wight. Built by Philip & Sons Ltd, Dartmouth, she can carry 34 cars and 165 passengers. This pair of vessels have been given increased speed so it is now possible to complete the crossing in 35 mins instead of the previous hour. With this vessel's delivery the service has been increased to an hourly schedule leaving on the hour



MR J. K. G. GREGORY has been appointed manager of the personnel services of British United Airways. Prior to this appointment Mr Gregory spent 23 years with the Merchant Navy & Airline Officers Association and left them as assistant general secretary (civil aviation). He is also a former chairman of the Association



MR ERNEST MARPLES, the Minister of Transport, has appointed Mr P. E. Lazarus to be his Principal Private Secretary in succession to Mr J. R. Madge who is being promoted.

DR F. W. STONEMAN has been appointed executive director, sales and engineering, for Ultra Electronics Ltd. Mr Allan Sadler is now chief engineer and Mr D. S. MacIntyre general sales manager.

THE death has occurred of Mr R. K. Munro, for 40 years general secretary of the Society of Consulting Marine Engineers and Ship Surveyors. He became general secretary of the then newly-formed Society in 1919 and retired on 31 December 1958.

MR A. H. HUME has been elected a director of the Cunard Steam-Ship Co. Ltd.

* * *

NORWAY and Haiti are the first two countries to accept the International Convention for the Safety of Life at Sea, 1960. The new Convention will not, however, come into force until 12 months after 15 acceptances have been deposited with the Inter-Governmental Maritime Consultative Organization (IMCO). These must include seven countries owning 1 mn grt or over. In the case of the 1948 Safety Convention, it was over four years before it came into force. The new Collision Regulations prepared at the International Conference on Safety of Life at Sea in London last year have already been accepted by several countries and will come into force on a date still to be fixed by IMCO.

MR L. J. DAVIES, who was a director of research of AEI (Rugby) Ltd, has been promoted to a similar position with A.E.I. Ltd. He will be responsible for the direct supervision of the four AEI research establishments at Aldermaston, Harlow, Manchester and Rugby. Dr J. E. Stanworth becomes the new director of research for AEI (Rugby) Ltd.



An order to install Argonaut V.H.F. radiotelephone equipment on every vessel of its fleet has been placed by the Alexandra Towing Co Ltd with the Marconi International Marine Communication Co Ltd. The order covers 41 existing tugs and one more building, together with eight shore stations at Liverpool, Southampton and Swansea. The Alexandra Towing Company has employed amplitude-modulated equipment for several years, and the new order represents an extension of this use and a modernisation of equipment to bring the fleet's communication system into line with up-to-date frequency-modulation technique. The new installations will give facilities for direct V.H.F. speech communication between the bridges of the tugs and those of the ships they will handle, provided that the ships are similarly equipped. The photograph reproduced here shows Argonaut equipment in use in the "Gower," a new tug in the Alexandra fleet

MR H. W. MAGEE has been appointed petrochemicals representative for the Gulf Oil Corporation and its subsidiary, Transocean Chemical Company, with offices in Milan, Italy.

MR NORMAN EDMOND, director and secretary, has been appointed general manager of the North of Scotland, Orkney & Shetland Shipping Co Ltd.

THE GOVERNMENT OF INDIA has granted recognition to the American Bureau of Shipping as a load-line assigning authority. The Government recognises Lloyd's Register of Shipping, Norske Veritas and Bureau Veritas in respect of the classifications of ships. The Indian Government is also considering the recognition of Germanischer Lloyd.

COAL AND COKE shipments from the Hartlepoons during the 32 weeks ended August 14 amounted to 931,244 tons compared with 901,002 tons last year. Imports of iron ore, during the same period, were 523,226 tons compared with 447,278 tons.

A \$21 MILLION BRIDGE across the main channel of the Port of Los Angeles is now under construction and is due for completion by late 1963. The high-span traffic bridge will connect San Pedro and Terminal Island.

THE value of the aircraft industry's exports during the first seven months of 1961 was, at £95 million, some £8 million more than in the corresponding period last year. Dollar sales accounted for £39 million of the total. Aircraft and parts showed an increase of £1.1 million, while the sale of aero engines and parts, at more than £50 million, exceeded by £6 million last year's record total for the seven-month period.

THE WEAR DOCKYARD, Sunderland, owned by Austin & Pickersgill Ltd, is being reopened. The firm are to commence work on a small yacht which will be delivered early in 1962, and afterwards, a 2,800-dwt collier will be built for the Shipping & Coal Company, Newcastle upon Tyne. These two vessels will ensure continuity of employment for a limited number of men for some months.

THE NEW 500ft long transit shed, No 11 on No 12 quay King George Dock, Hull, is now in operation. It is the second of six new sheds which the BTC expect will materially add to the speeding up of cargoes and have a considerable effect on enhancing the importance of the dock as a shipping terminal. The first of the new sheds, No 12 on No 12 quay, is already in service.

THE CABLE SHIP *Monarch* sailed from Southampton on September 1 to lay the last 500-mile stretch of the trans-Atlantic section of the Commonwealth telephone cable. The trans-Atlantic section of the cable will join Oban, Scotland, to Hampden, Newfoundland. The second section of the £80,000,000 Commonwealth telephone cable project will link Canada with New Zealand and Australia in 1964. Australia and New Zealand will be linked in 1962. Proposals for the third section, linking Australia with Malaya and Hong Kong via New Guinea and North Borneo, are now being studied by the governments concerned.

A NEW ocean-going motor tug, the *Thames*, for L. Smit & Co.'s Internationale Sleepdienst of Rotterdam, has been launched from the yard of J. & K. Smit's Scheepswerven N.V. at Kinderdijk (Holland). She will be a sister ship of the *Mississippi*, which was put into commission in September 1960.

A MOBILE working platform, incorporating a helicopter landing station, will be launched on the Tyne by Swan Hunter & Wigham Richardson Ltd on September 22 for the British Petroleum Co Ltd. The platform will be used near Das Island in the Persian Gulf.

THE MEMBER LINES of the West Africa/Japan Rate Agreement are to increase rates of freight on all commodities from West African ports to Japanese ports by 7½ per cent, effective November 1.

THE AGENCIES of the Batavier Line (Wm H. Muller & Co (London) Ltd), the Cornelder Line (Cornelder's Shipping Co) and the Rotterdam-London Line (London-Rotterdam Maritime Agency Ltd), are now merged into one company under the style of Bacoro Lines Agency Ltd, with offices at Custom House & Wool Quays, Lower Thames Street, London EC3.

SHIPPING COMPANIES in the Australia-Europe trade are to expand their cargo services to provide monthly sailings between Australia and Malta.

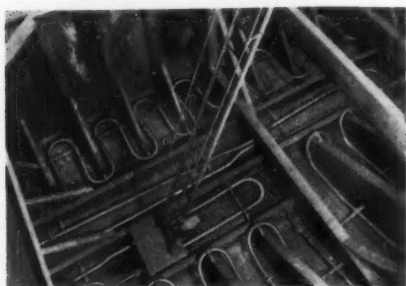
FIFTY YEARS AGO

From THE SHIPPING WORLD of 6 September 1911

Concurrently with the sailing of the new Nelson liner *Highland Warrior*, the tenth vessel of the firm's new fleet, the Argentine Government have issued a decree assigning to the fleet the status of first-class mail and passenger steamers. The British postal authorities utilise these vessels for a supplementary mid-week mail service. The ten new passenger steamers, representing a gross tonnage of 80,000, have all been commissioned during the short period of eighteen months. The *Highland Warrior* was launched in May last by Messrs. Russell & Co., Port Glasgow.

... it would be folly to consider seriously a possible supply of energy in a conceivable acceleration of the liberation of energy by atomic change.

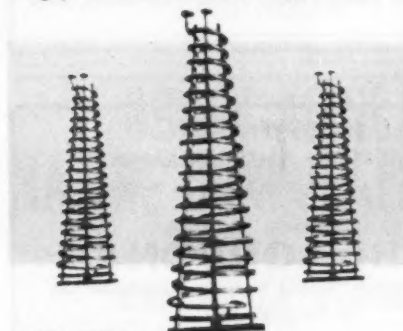
The rush of Americans homewards is now at its height. As a proof of this it may be mentioned that during the past week the White Star Line have despatched no fewer than six steamers from these shores, the aggregate being 132,000 tons. By these vessels the enormous number of 8,220 passengers have been carried, of which no less than 2,010 were first-class. With the exception of the *Olympic* all these vessels sailed from Liverpool. The *Olympic's* saloon passengers alone were 719, and this steamer now holds the record for the largest number of first-class passengers, both eastward and westward. The Cunard Company have also despatched to New York during the past week the *Lusitania*, *Carmania* and *Mauretania*.

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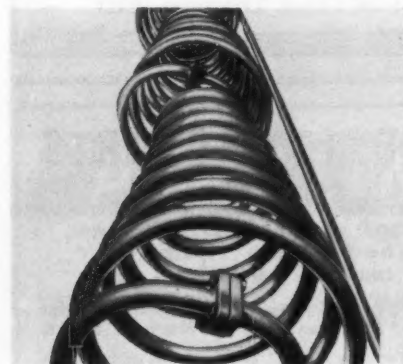
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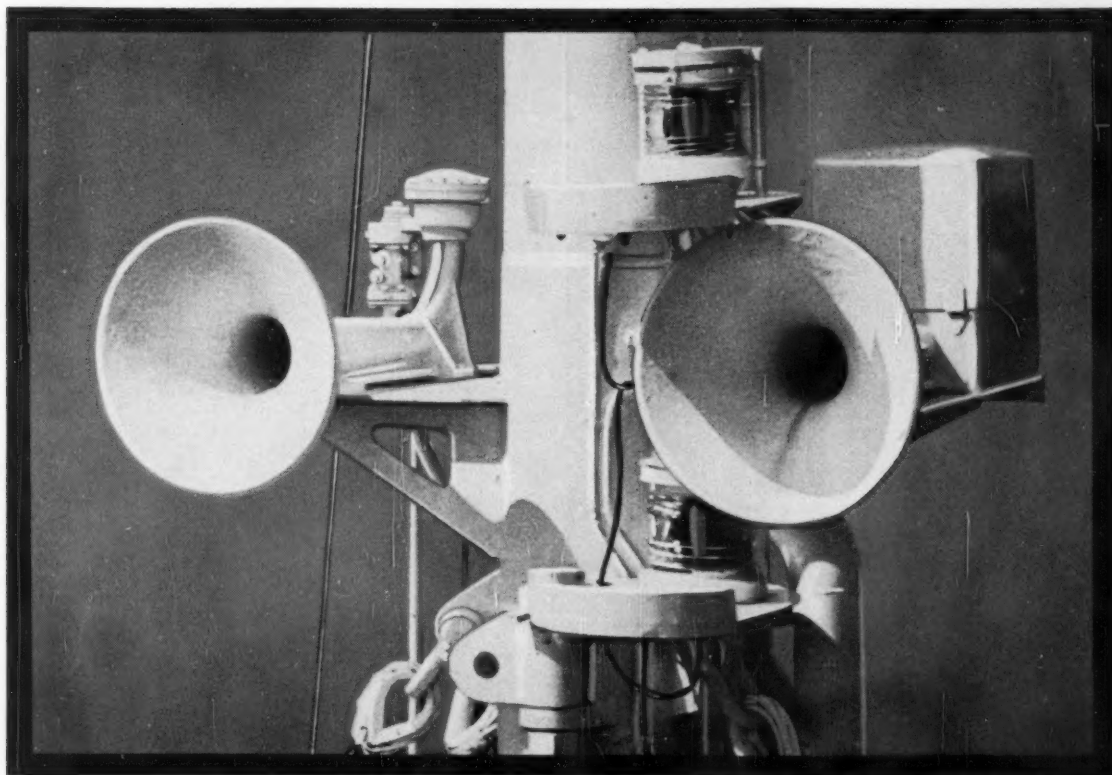
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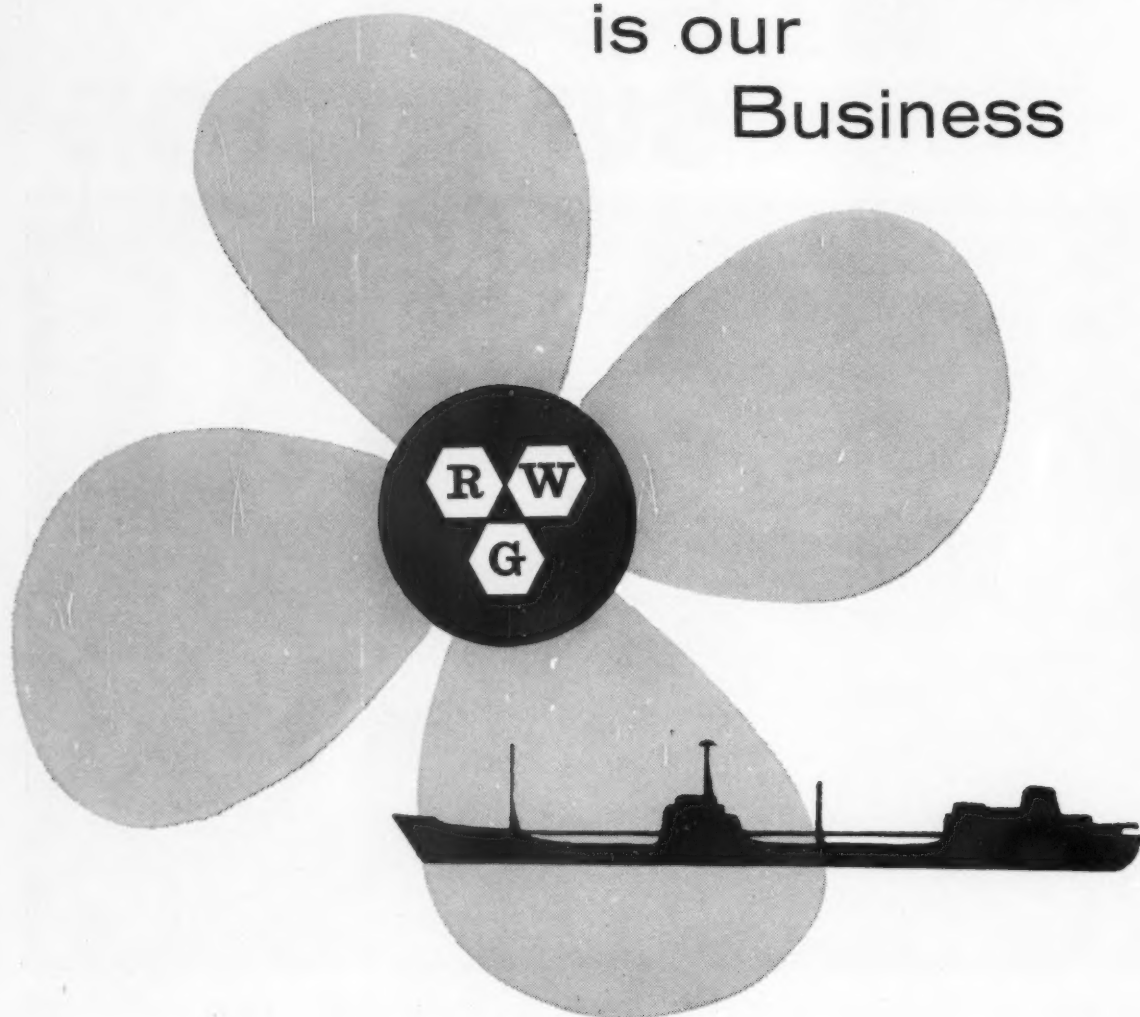


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